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American Perfumer AND AROMATICS

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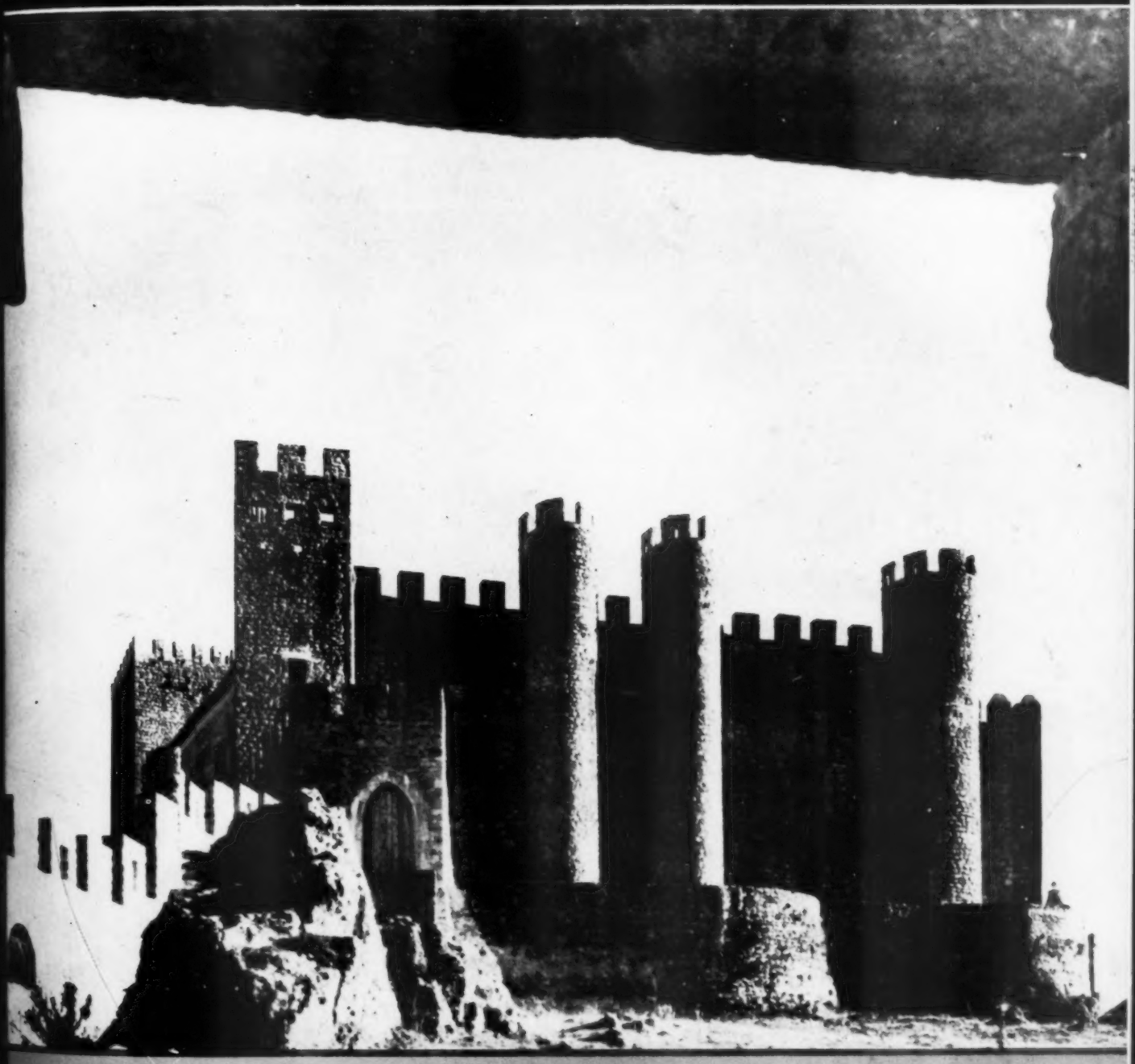

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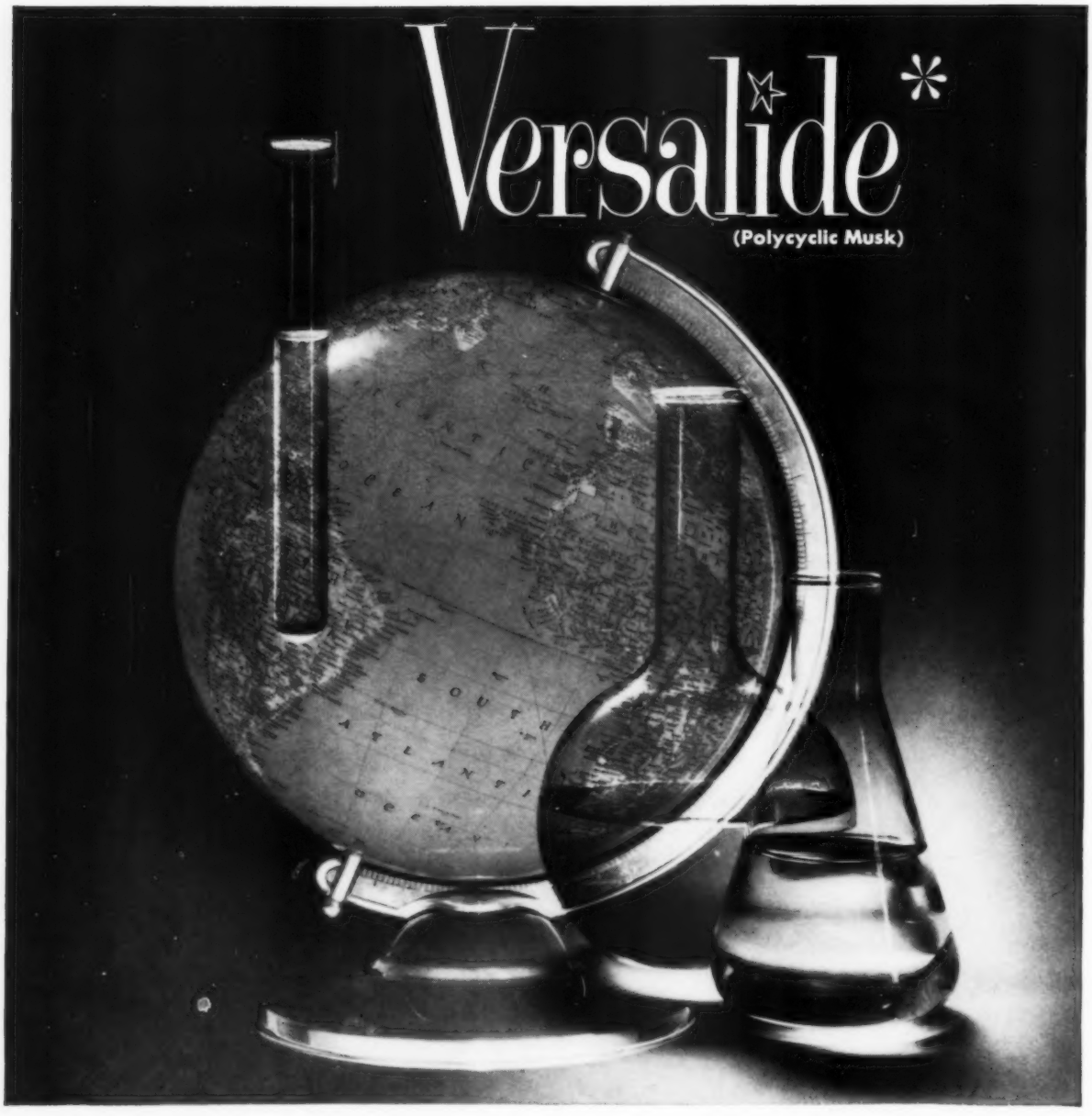

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COVER: The Castle of Obidof dates back to the 12th century and now serves as a tourist inn. It is located in the "Walled Town", an example of a typical medieval borough, situated 60 miles from Lisbon, the capital of Portugal. Courtesy of the Casa De Portugal Gov't Information Bureau.

VOL. 71, NO. 5

MAY, 1958

American Perfumer AND AROMATICS

NBP ABC ABP

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LOS ANGELES
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CHICAGO
868 Peoples Gas Building, 122 So. Michigan Ave., Chicago 3, Ill.

EDITORIAL AND EXECUTIVE OFFICES
48 W. 38th St., New York 18, N. Y. LOngacre 5-3320

SAN FRANCISCO
McDonald-Thompson, Morton McDonald, 625 Market Street, San Francisco 5, Calif. Yukon 6-0647

Please address all mail to: AMERICAN PERFUMER AND AROMATICS, 48 West 38th St., New York 18, New York, U.S.A.

PUBLISHED MONTHLY by Moore Publishing Company, Inc. Publication office: Emmett St., Bristol, Conn., U.S.A. Editorial and Executive Offices: 48 W. 38th St., New York 18, N.Y. J. H. Moore, Chairman of the Board; J. H. Moore, Jr., President; Harold W. Springborn, Vice President; G. B. Brennan, Secretary. Subscription Rates: U.S.A., Possessions and Canada, $5 one year; 50c per copy. Foreign, $15 one year. Entered as second class matter. January 12, 1950, at the Post Office at Bristol, Conn., under act of March 3, 1879. Moore Publishing Co., Inc., is publisher also of Advertising Agency Magazine, American Printer & Lithographer, Gas Age, Gas Appliance Merchandising, Industrial Gas, LP-Gas and Brown's Directory of American Gas Companies. Address all correspondence to editorial and executive offices.

(Cable Address: Robinpub, N. Y. Volume 71, No. 5.

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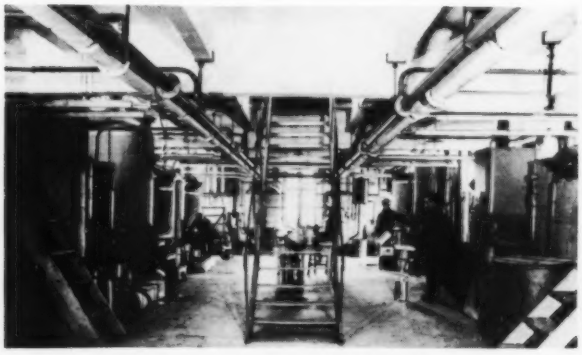
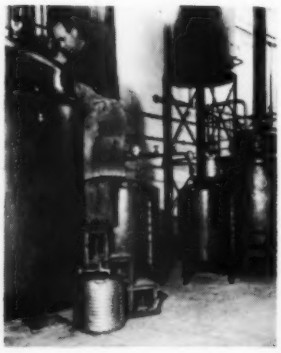

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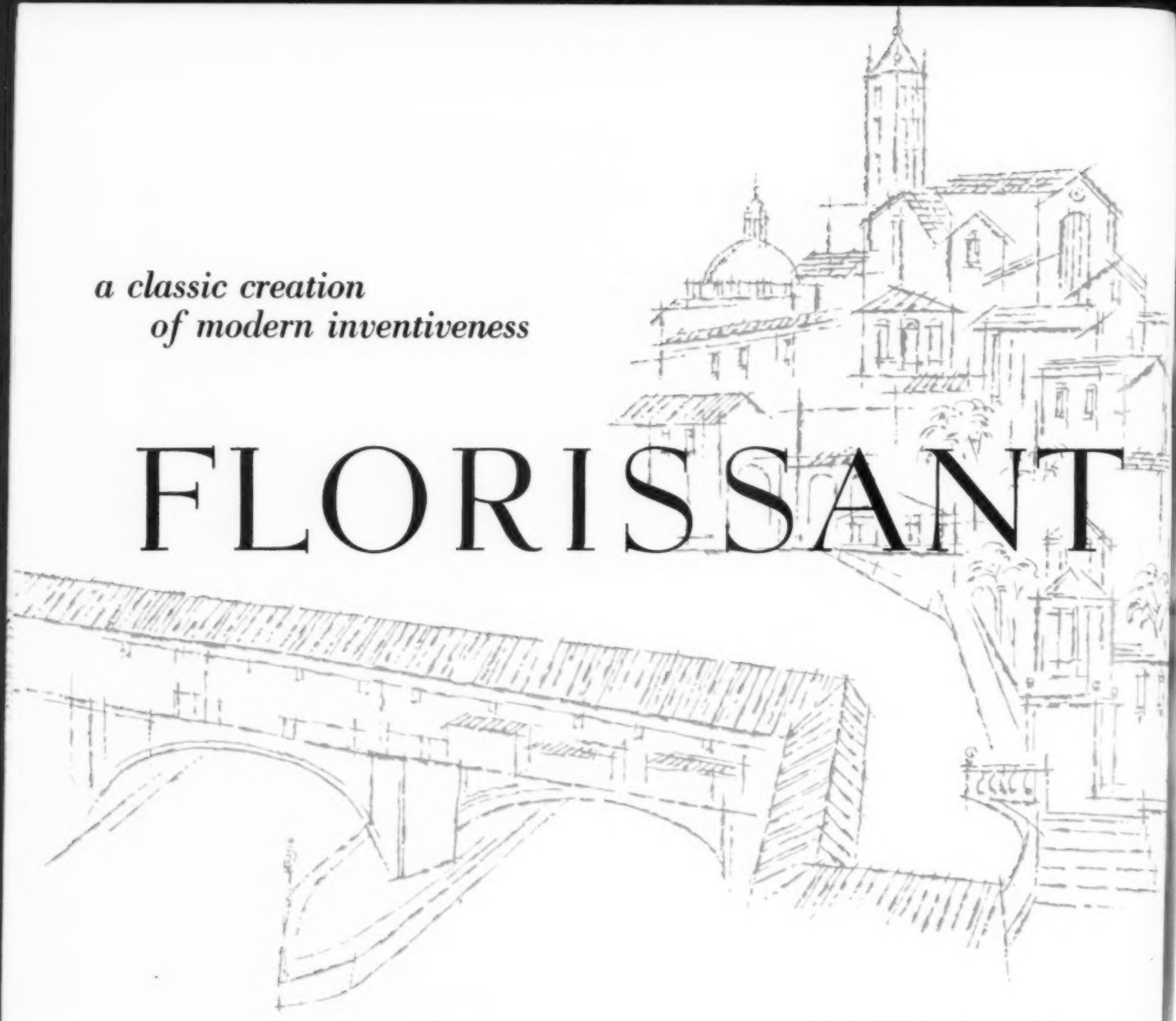

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LAST MINUTE NEWS . . .

Mary Chess Inc. Buys Parfums Schiaparelli

Since the sale in March of Parfums Schiaparelli to Mary Chess Inc. it has been announced that both companies will be continued as separate organizations retaining their present showrooms in different locations on Fifth avenue, New York. Mrs. Beverly Stiansen will be in charge of sales, as vice president, for Mary Chess Inc. and Arnold S. Berke will be vice president in charge of sales for Parfums Schiaparelli. However sales representation for both will be coordinated with salesmen handling both lines. The sales territories have been revamped into smaller areas so that salesmen may make more frequent calls. Schiaparelli is a French import line of Shocking and other fragrances and Snuff toiletries for men. Mary Chess Inc. manufactures sachet, bath preparations and toilet waters as well as blends of popular fragrances. Joseph A. Danilek, president, will direct the operations of both companies.

New Booklet Gives Answers on Foreign Licensing

Company executives with an interest in foreign licensing who often find it difficult to find reliable information on it may have their questions answered in a concise and practical manner in a new publication available without charge from Pegasus International Corp. 1 E. 53rd St., New York, N. Y. The booklet "Foreign Licensing—Questions and Answers" is designed to help the business executive gain a working knowledge of the problems of foreign licensing and to serve as a guide in avoiding its pitfalls.

Producers Organize Royal Jelly Research Foundation

Producers and dealers in royal jelly have organized the Royal Jelly Research Foundation to promote research work in royal jelly primarily in the field of medicine. It was felt that there is a need not only for new work but also to have reconfirmed in the United States the medical research work already done in Europe, so as to place knowledge about royal jelly on a readily acceptable basis to the cosmetic industry, the ethical pharmaceutical houses, the medical profession and regulatory government authorities. Substantial quantities of royal jelly were pledged to the Foundation as well as money in sufficient volume to assure a well financed operation that can be started immediately. The Foundation will be governed by five directors. R. B. Willson, New York, is chairman; George F. Hohmann, Napa, Calif. is secretary; Leslie Little, Shelbyville, Tenn. is vice chairman and treasurer; and the other directors are Garnett G. Puett Jr., Hahira, Ga. and E. B. Ault, Westlaco, Texas. Member applications are welcomed from producers, dealers, doctors, other scientists and manufacturers using royal jelly.

Selling Rights to Air-Wick Purchased by Lever Bros. Co.

Rights for marketing Air-Wick, an air deodorant available in wick and aerosol form, have been sold by Seeman Brothers Inc. to the Lever Bros. Co. Rights are given for sales in the United States, its territories and possessions and Puerto Rico. The product will be merchandised by the Pepsodent division of the Lever Bros. Co. Airkem Inc. supplier of the basic ingredients for Air-Wick will continue to do so. Rights to Air-Wick in 62 foreign markets are retained by Airkem and the seller. Air-Wick was introduced by Seeman Brothers Inc. in 1943. Over a half million dollars it is reported will be spent by the new owners to promote the product. Lever Bros. Co. less than a year ago bought the low suds detergent "All" from Monsanto Chemical Co.; so the purchase of Air-Wick makes it the second major consumer product bought by it.

S. C. C. European Tour September 5-24

The Society of Cosmetic Chemists plans to cover five new countries in its European tour September 5-24 this year. They are Italy, Germany, Denmark, Holland and Belgium. The group is limited to 50.

Substance Discovered to Destroy Bacteria Causing Tooth Decay

A chemical substance in human saliva that inhibits or destroys bacteria commonly associated with tooth decay has been isolated by an Ohio State University dental research team, according to a report by Dr. Gordon E. Green at the May 1 meeting of the Society of American Bacteriologists. Dr. Green is chief investigator of a continuing investigation launched by the University's College of Dentistry to determine why some persons—about one in 100—are seemingly resistant to tooth decay regardless of age, sex, dietary habits or oral hygiene. The chemical substance isolated attaches itself to lactobacilli on contact with caries-immune saliva.

German S. C. C. to Hold International Congress Sept. 12-15

The German Society of Cosmetic Chemists is to hold an international scientific convention in Bonn Sept. 12-15. Four symposia with themes discussing cosmetic chemistry are scheduled. These are: 1. Chemistry of Hair Dyeing and Hair Styling. New developments in permanent waves, recent conceptions regarding the chemistry of keratin sulphur and microscopical research in hair dyeing (with film) will be covered. 2. Chemical and Biochemical Behavior of Smelling Substances. The physical-chemical behavior of smelling substances in various raw materials, the inactivation of preservatives by nonionics, the pharmacology of etheral oils and colamides as cosmetic raw materials will be covered. 3. Chemistry and Biochemistry of Emulsions. Greasing of skin and depth action, and characteristic features of synthetic phosphorus acid compounds for the preparation of products for the care of the skin will be discussed. 4. Methodology and Basic Research. The possibilities of objective color valuations in cosmetic preparations, solidity test of creams, change of consistency of soap jellies in relation to temperature, market research and successful perfuming and mathematical methods of evaluation in cosmetics will be covered. The entertainment planned includes a cocktail party on the opening evening, a banquet on the evening of the second day and a boat ride on the Rhine. Convention participants are requested to register not later than June 15. Full information may be had from the Secretary, Dr. F. Keil, Lappenbersalle 9, Hamburg, 19, West Germany. Cosmetic chemists from all over Europe and the United States will attend the congress.

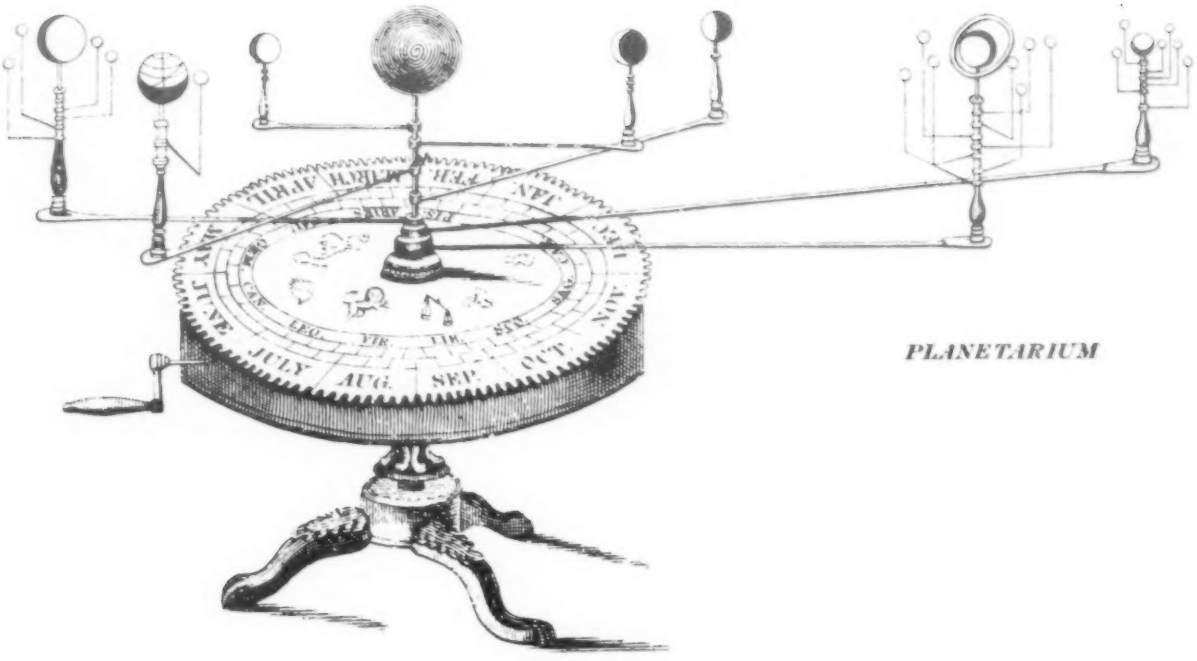
Trials of "Men-in-Waiting" Recognised by Mennen Co.

The father-to-be a research by the Mennen Co. disclosed, has a feeling of being pushed into the background and quite unnecessary at the time. Leading obstetricians too claim that the father-in-waiting is often their biggest problem. As a result the Mennen Co. after a year long city by city campaign saluting every Lady-in-Waiting, has extended its promotion to include the neglected Gentleman-in-Waiting. The first of these Lady-and-Gentlemen-in-Waiting events took place April 24 in Kaufmann's in Pittsburgh. A Red Cross nurse showed 500 papas-to-be how to bathe a baby. Special gifts for the men included Mennen's brushless shaving cream, after shave talc and Quinsana for pacing the hospital corridors; and a shopping pad so that the father can take over some of the household chores.

Mink Oil May be Useful in Cosmetics Says Dr. Cross

Dr. John M. Cross, professor of pharmaceutical chemistry in Rutgers College of Pharmacy who has been conducting research on oil derived from mink fat reports that mink oil may be useful in skin softening creams and may have uses in perfume. Gray white mink suet is so easily renderable that body heat turns it into a clear yellow oil. It is reported that the Rutgers scientists are probing for an obvious hormone content. All of its properties are being checked and rechecked in the laboratories. Already four companies in the cosmetic field have been experimenting with it. According to reports Dr. Cross declared that mink get a good diet of ground beef, vitamins and cod liver oil during their six months life on mink ranches. There are only four or five ounces of fat on the average two-pound mink and it is estimated that 350 tons of rendered oil a year might be produced from mink fat throughout the country. Mink oil incidentally is quoted at $6 per trial pound and in lots under 100 lbs. at $4.

Problems seem Astronomical?



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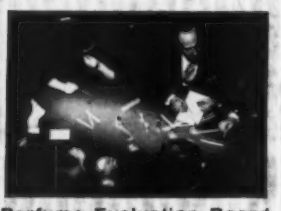

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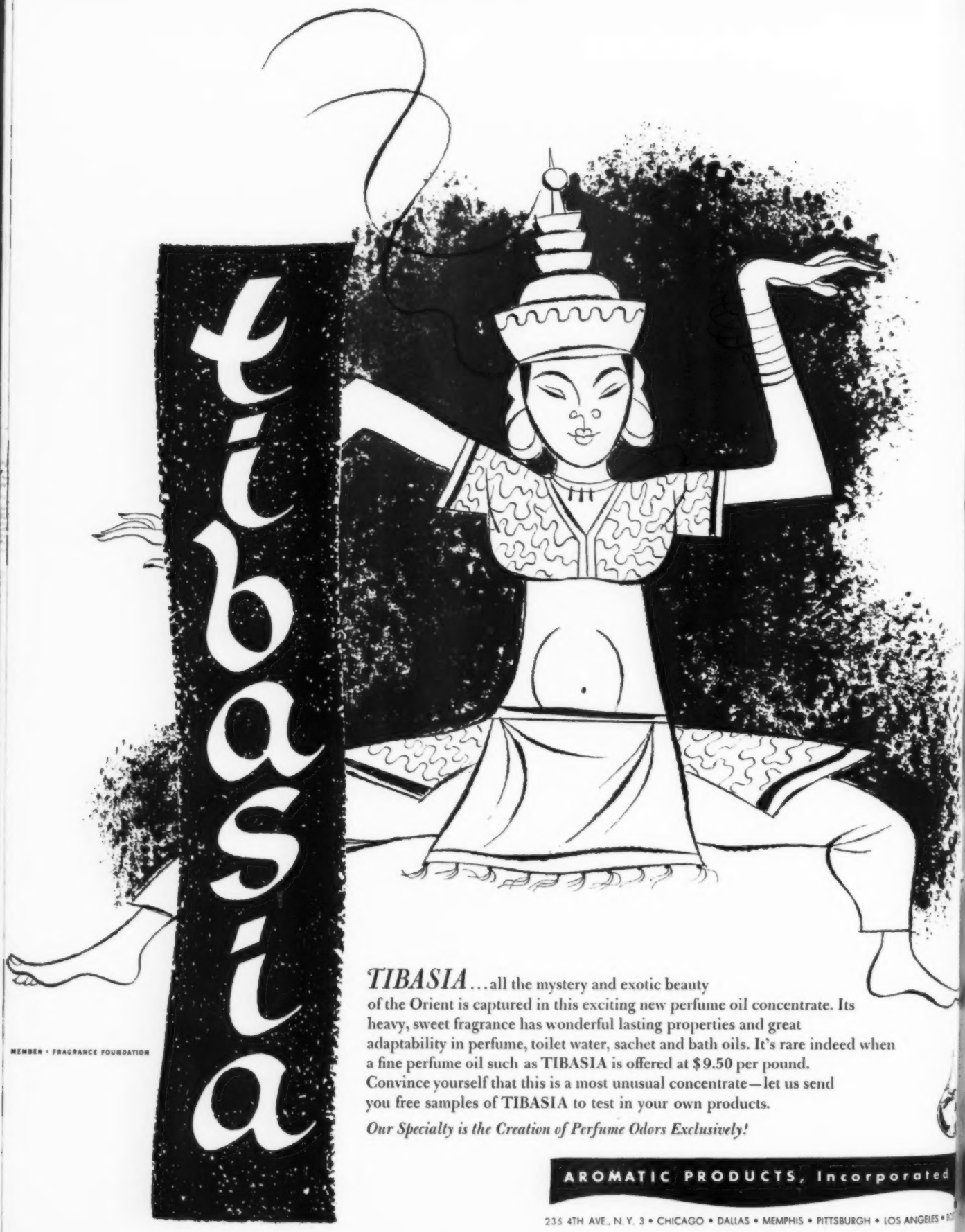

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DESIDERATA

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Hair Spray Problem

The findings of Bergmann, Flank and Blumenthal on two young women using chest x-ray examination following aerosol hair spray inhalation must be further checked on both animals and man. The implied potential for harm must be taken seriously.

Such large molecules as shellac, PVP and other vinyl polymers, not to mention lanolin fractions may not be quickly enough absorbed and metabolized if the user is exposed to a large dose of the aerosol fog during use. Since the authors mentioned above do not disclose the particular hair spray involved, one can only guess at the composition that caused the difficulty.

Lanolin, Who First in U. S.

In attempting to fill in some of the vacant spots in the history of lanolin, I have been trying to learn who was the first producer in the U. S. A. and when did he start.

I already have one set of data recently submitted by Hans Wagner. Confirmation of this knowledge would be a great help. So, "old timers," would you please try recollecting and write me your thoughts on the subject.

Molecular Structure and Organoleptic Quality

Friend and contempory Muus (M. G. J.) Beets has kindly sent me a copy of the symposium held on this subject in Geneva in 1957. The book is published by the Society of Chemical Industry as Monograph #1.

Dr. Beets, by the way, contributes the longest section dealing with structure and odor. I like his statement (quoted later by Ruzicka) "a general characteristic for the structure of Musk leads to the conclusion that a molecular weight of 200-300, a closely packed structure and the presence of a functional group, should be considered the minimum requirements for musk odour."

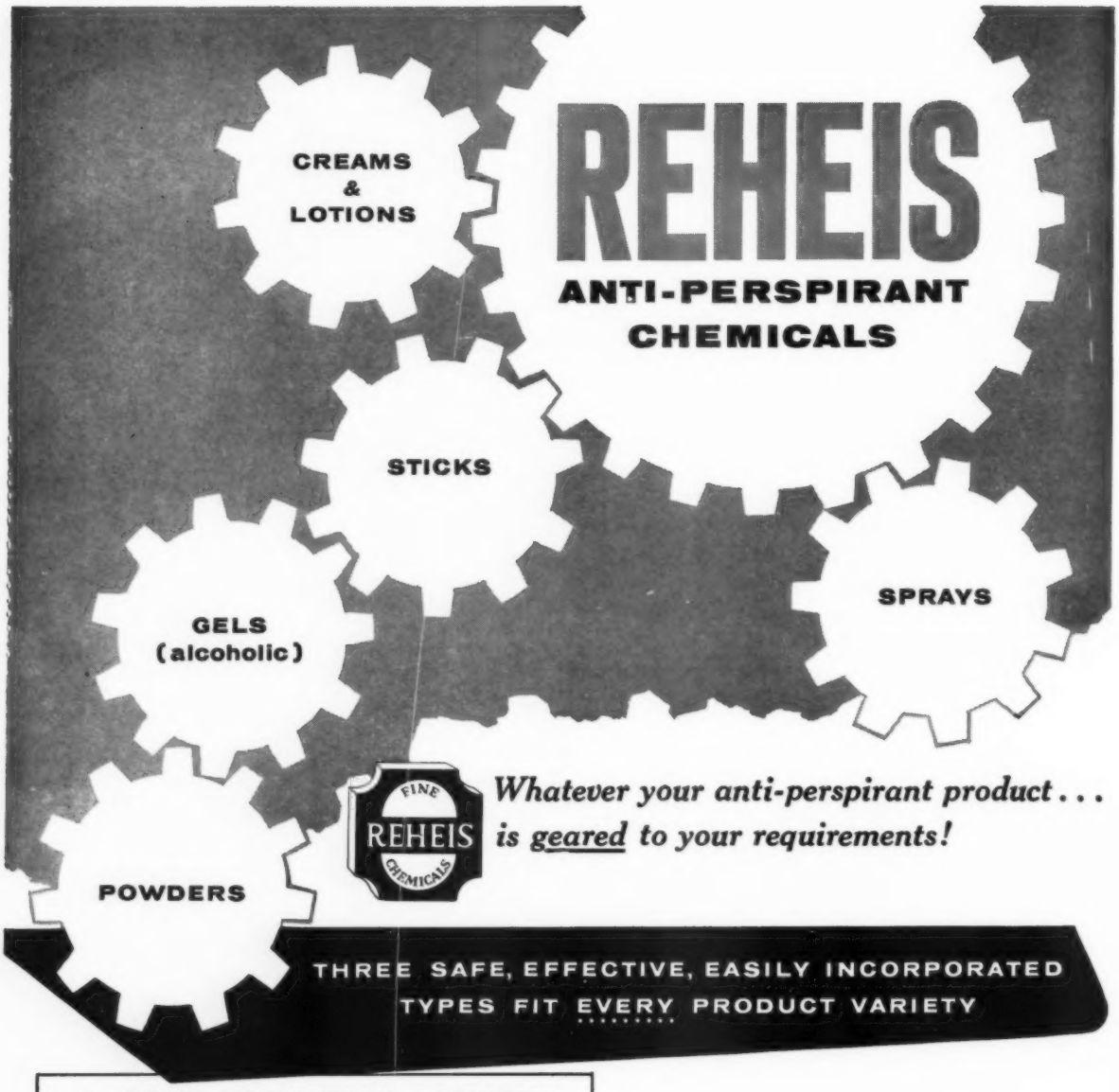
My grateful thanks for the book and congratulations on your own brilliant work in this fascinating field, Dr. Beets.

Magic Lipstick

Couldn't help but get a bang out of the book review (in the N.Y. Times) of Ernestine Gilbreth Carey's "Giddy Moment" dealing with the development of a lipstick which makes men kiss the lips wearing it. This is not only unfair competition to other lipstick manufacturers not possessing the secret formula, but think of the devil such a situation could raise. Now I want to read the book.

Notes

Columnist Art Buchwald writing in the New York Herald Tribune from Paris describes work by Nobel Medallist A. Butenandt and N. Tam, on a perfume secreted by the female water cockroach and which is highly prized by the Tonkinese—the scent is a pure chemical, trans-delta 2-hexenyl acetate. . . . The 1958 *Jahrbuch fur den Praktiker*, though published in German, lists a lot of interesting data. . . . Lorincz, writing in the April 12 issue of the J. Am. Med. Assoc., states that contrary to common belief, most common skin disorders are "not significantly connected" with dietary or nutritional allergies or deficiencies . . . It had to come—currant juice is used to remove wrinkles in British Patent No. 967,054. . . . Urocanic acid and sun tan continue to be studied by Zenisek's group. . . . Congratulations to Gert Keller upon his election to the Presidency of the Essential Oil Association. . . . There is supposed to be a paper on the inactivation of preservatives by nonionics given at the Los Angeles meeting of the A.Ph.A. . . . Think Don Powers is on the track of finding out if a "moisturized" cosmetic truly does the job. . . . Trichlorophenylacetic acid is a pretty good preservative in concentrations of 0.1 per cent and less, even in the presence of nonionics. . . . Someone in the aromatics business and a dermatologist will get together one day and publish a paper on the hypo-allergic aromatic chemicals and isolates—they might even go farther and try to tie together combinations that sensitize, so these can be anticipated instead of found out by long, hard cut and try methods duplicated in a dozen places. . . . Have you ever noticed how fleeting some colors are in bentonite gels? . . . There is a new ampholytic surfactant called DESIL, which is a N-lauryl (aminosulphonic) β-amino butyric acid compound—Keep an eye on it—it has a R.W. coefficient of 5 in 1 per cent solution. . . . Spray dried fragrances and flavors show some interesting possibilities. . . . Have you looked at jojoba oil, as is and hydrogenated? . . . There are now two sources for sulfonated monoglyceride surfactants. . . . Hope motivation research does a better job for this industry than it seemed to do for one new car. . . .



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3960

Antiseptic Shampoo

The trend toward antiseptic "dandruff" shampoos calls for a search for new and better antibacterial compounds.

A new organic silver complex, having a broad spectrum of activity against Gram-positive and Gram-negative organisms has just made its debut. It is nonirritating and nontoxic both on intact and broken skin. It can pass the rabbit eye test for shampoos.

The silver is strongly bound, working on the oligodynamic principle. Concentration of 1% of the complex equivalent to 0.01% of silver, are used in shampoo. The compound is odorless, tasteless, noncorrosive, water soluble and compatible with a wide range of materials. Besides shampoo, the material is suggested for use in soap and general cosmetic formulation.

Satellites and Emulsions

Horizons in chemical as well as in the physical sciences are widening.

Just as physicists are finding new developments affecting existing knowledge of outer space from satellites with their delicate equipment so too research chemists armed with the newer and more refined means of analysis are constantly finding new and more efficient ways of improving and making more useful cosmetics.

In the field of Emulsions, which constitutes the bulk of cosmetics, the most recent information on all important aspects as they apply to cosmetic manufacturing are tersely but adequately covered by recognized authorities in the Emulsion Emphasis section of American Perfumer and Aromatics for June.

Aerosol Facilities Coordinated

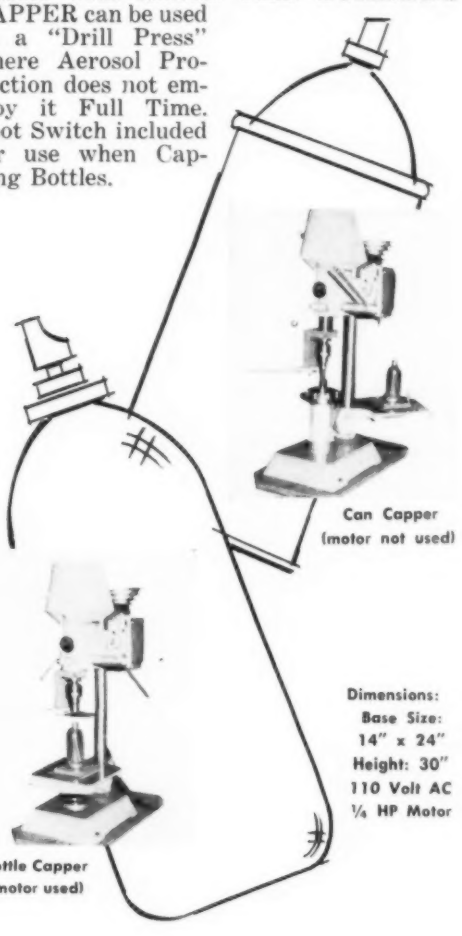
Aerosol Techniques Inc., Bridgeport, Conn. and Western Filling Corp., Los Angeles, Calif. have associated their production and service forces but each will function individually. A combined filling capacity of 75 million units annually will result.

NEW COMBINATION

CAPPER

FOR AEROSOLS

BUILDER's NEW "Combination Drill Press Capper for Aerosol Bottles and Cans has a production rate of approximately 2 per minute with Aerosol Bottles . . . 8 per minute with Aerosol Cans. BUILDER'S CAPPER can be used as a "Drill Press" where Aerosol Production does not employ it Full Time. Foot Switch included for use when Capping Bottles.



Can Capper (motor not used)

Bottle Capper (motor used)

Dimensions:
Base Size:
14" x 24"
Height: 30"
110 Volt AC
¼ HP Motor

Aerosol Bottle Capper $208.00
Attachment for Can Capping $160.00

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SHEET METAL WORKS INC.
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QUESTIONS & ANSWERS

1286: DEPILATORIES

Q. *We are well acquainted with your magazine and would like to ask you for information regarding the most up to date methods for hair removing preparations. The literature we have contains only informaion regarding depilatories. M. L. K., Austria.*

A. There is a chapter in deNavarre's book, "The Chemistry and Manufacture of Cosmetics" which discusses the use of calcium thioglycolate, but this data originated in 1941. More has been published on depilatories since that time, and as a result, you will have to look through various trade journals to get that information. Books by Harry, Keithler and Sagarin and co-workers, all contain data on this subject. Since the depilatory market is a rather small one, the data on the subject is not too voluminous.

1287: SULFONATED OLIVE OIL

Q. *We would like a source or supplier of sulfonated olive oil which we could not find in "The International Encyclopedia of Cosmetic Material Trade Names," although we did receive other valuable information from this book. We also noticed that there are many bubble bath oils on the market although the statement was made in one of your issues that a detergent bubble bath could not have much oil added to it. If you have any information on bubble bath oils, we would appreciate receiving this. J. E. P., Arizona.*

A. Sulfonated olive oil is not a trade name and therefore would not be found in "The International Encyclopedia of Cosmetic Material Trade Names." There are comparatively few manufacturers of sulfonated olive oil now, because the material is too expensive. However, you might try the National Oil Products Co., one of the largest sulfonators in this country. If they do not make it, we will give you other names to try. You cannot add oil to bubble bath preparations because oil flattens out the bubbles. As a result, any bubble bath products which look like oils are simply viscous, detergent type bubble baths. There is nothing new on this subject that did not exist some time ago.

1288: HAIR DYE

Q. *Please supply us with a formula for a liquid product suitable for gradually turning white hair to black and dark brown which does not contain substances prohibited by law. We are not interested in a formula of instantaneous action. The product we require should give guaranteed results as to firmness of the coloration obtained and when the desired colóration is obtained the hair can be washed without fear of losing its color and should contain substances to cleanse the head, revive the hair, eliminate scurf and grease and give the hair a natural shine. The products on our market are results of old European formulas and produce unsatisfactory results. I am convinced that the North American technique in the cosmetic industry is the foremost in the world. A.D., Argentina*

A. We wish we could supply you with a formula for hair coloring such as you request. Hair dye chemists have tried to perfect such a formula but to no avail up to now. You will have to settle for either the use of a *p*-phenylene diamine dye or use metallic dyes of which the lead type is the most common. Hair dyes cannot cleanse the hair, revive it, lubricate it or give a natural shine or eliminate scurf and grease. They will only color the hair and that is all. There are very few books on the subject of hair coloring. If you are a subscriber to the American Perfumer and Aromatics, the entire subject of hair coloring has been adequately covered in recent articles by Kass. If you want a formula for a straight hair dye, please let us know and we shall be happy to send one to you as a starting basis.

AMERICAN AROMATICS

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• *Essential Oils*

• *Aromatic Chemicals*

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The cosmetics chemist has learned from the motivational research psychologists that the most intimate emotional factors influence a woman's choice of cosmetics — and chief among them is scent.

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Why not test some of the Verona specialties listed at the right. See how successfully they help you hit, and *hold* the piquant round notes and top notes that you want your products to have. We will gladly send samples on request.

A FEW VERONA SPECIALTIES

RESEDALIA, an acetal.
VERONOL, an aldehyde.
CYCLAMAL, cyclamen aldehyde.
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PHENYL ACET ALDEHYDE PHENYL GLYCOL ACETAL
TERTIARY BUTYL DI METHYL CUMARIN
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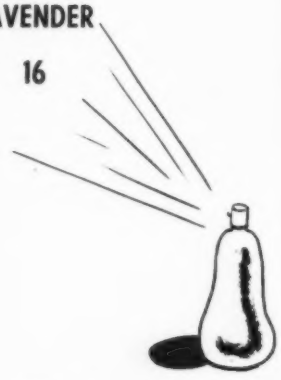
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Metuchen, N. J.

Aerosol NOTES

by Dr. Winston H. Reed

Emulsion Systems

The expansion of pressure packaging into cosmetic, pharmaceutical and food areas has intensified research on pressurized emulsion systems. The published technical data on these systems is not plentiful. A real need exists for fundamental correlations on the effect of viscosity on spray performance under some standard reference conditions, surface tension effects, expansion ratios and characteristics of thixotropic gels. Some pertinent papers on colloids are mentioned in March, 1958, Chemical Engineering Reviews section of Industrial and Engineering Chemistry. Improved viscosity determination techniques would be particularly helpful in aerosol formulation problems. The paper on "Instrumentation for the Aerosol Industry," which is being presented at the Cincinnati meeting of the C.S.M.A. by Bill Leighton of Union Carbide, should be of definite interest in this connection.

The papers presented by R. W. Morrow and F. S. Palmer at the June, 1952, meeting of the C.S.M.A. on a "Method of Determining Pressure and Consistencies of Aerosol Coating Compositions," and on the "Formulation of Aerosol Enamels," presented at the December, 1952, meeting of the C.S.M.A., are worth review. They covered useful correlations between performance, viscosity and pressure. These papers and other excellent papers by Dr. Palmer dealt primarily with pressurized lacquer and paint problems. Such studies of viscosity relationships certainly have been extended by alert aerosol laboratories to other classes of products. There would be a mutual gain if more of this material were published.

Pressurized Toothpaste

One of the key factors in the selection of a product for merchandising is frequency of use. It is surprising how many times this all important factor has been ignored in the selection of products for production and merchandising. It certainly was considered important in the selection of toothpaste as one of the first products to be developed and merchandised in the aerosol form with nitrogen as the propellent. Both Colgate and Rexall (Packed by Aerosol Techniques, Bridgeport, Conn.) are moving into the dentifrice market with pressurized tooth cream. This is a big market, a healthy, gleaming, well brushed $150,000,000 market.

The pressurized products should get wide acceptance by a public already accustomed to the convenience of aerosol lather. The paste is about the consistency of a slightly thinned marshmallow topping. The container should not be shaken, since this could lead to excessive loss of the nitrogen propellent. This point is one that should be stressed in the advertising and on labels of such products, since the public is accustomed to shaking many aerosol products to obtain best performance. Both the Rexall and the Colgate product use a Precision valve. The advent of these two commercial products will provide a very useful market test on technical and profit performance of such packages. There may be a few "bugs" to be worked out, but these will be overcome. If the water proves nice and warm, there will be quite a crowd in the pool.

Market Studies

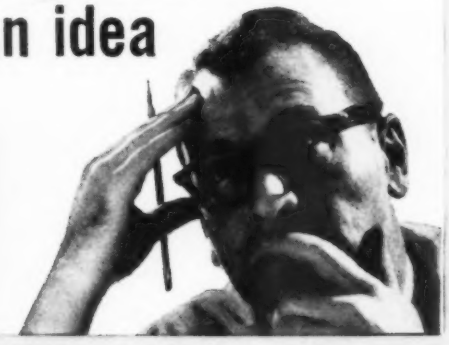
Two of the most recent of duPont's excellent series of Aerosol market studies deal with personal products and with hair products. The survey on personal products deals principally with suntan lotions, personal deodorants and colognes. That on hair products covers lacquer, conditioners, tints and home permanents. All indicate favorable acceptance for aerosol products with a *large unsaturated market*. Three other duPont surveys consider the market for aerosol pharmaceuticals, household products, and aerosol paints. All are very well done and contain material of interest to the research director, as well as the sales manager, since they indicate profitable areas for product development or product improvement.

Garden Sprays

The beautiful illustrations of the incoming seed catalogs indicate that garden working time is close at hand. Something new and good is quite evident in many of the catalogs, a new awareness of the many useful services provided by the aerosol package; Gibberellin sprays to make the plants grow faster, the old dependable insecticides with some new ones to keep the bugs down, insect repellents to make garden work in the early evening more bearable, blossom sets, leaf shines and weed killers. The "green thumb" population should offer a good market for protective hand creams. They make cleaning up after gardening a cinch.

MARYLAND GLASS
DESIGNERS USE THE FULLER CALCULATOR
FOR INTRICATE COMPUTATIONS . . .

BUT ESSENTIALLY
Package design begins with an idea



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Every craftsman knows his tools, but the creative package designer must do more—first he must bring an idea to life. An idea that says Yes to questions like: Is this container distinctive? Will it sell on the shelf? Does it pack properly, ship safely? Our design department specializes in designs that stop the eye . . . start the sale. For an affirmative solution to your design problems, contact Maryland Glass Corporation, 2147-53 Wicomico St., Baltimore 30, Md.

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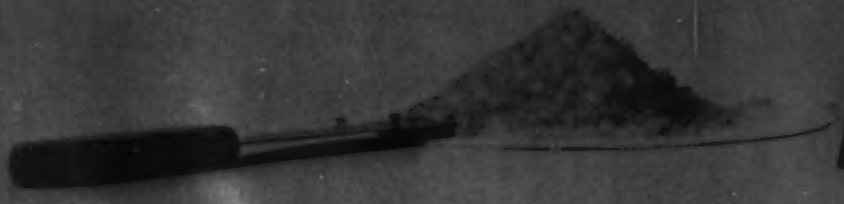
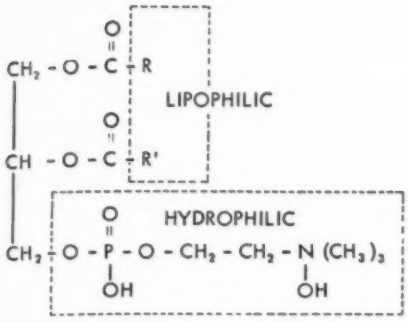




LECITHIN

Lecithin—

Versatile Cosmetic Ingredient

LYLE C. WOODS*

In this modern age of synthetic chemicals, it is surprising that one of the most versatile materials to become available in large-volume quantities during the past decade is a natural product. Present in all vegetable and animal tissues, it has been known for many years and has been recognized as an important factor in cell metabolism.

Yet, today, this versatile material, lecithin, is just beginning to be fully exploited commercially. From soups to chocolates, from the petroleum field to the cosmetic industry, more and more uses are being discovered for this interesting product.

In humans, lecithin is concentrated in the more vital parts of the body, such as the brain, reproductive organs, liver, kidneys, and heart. Its presence in these organs is now leading to extensive medical research on its part in human metabolism and the role it may play in the prevention and cure of functional disorders.

Of greater interest to the cosmetic manufacturer, lecithin is found in combination with cholesterol in skin tissues. It has been reported that human skin contains approximately 0.4% natural lecithin. This, too, has led to medical investigations on its use in treatment of resistant skin conditions.

Outside the human body, lecithin occurs most abundantly in eggs, nuts, seeds and grains. The egg yolk, the richest of these sources, contains about 2¼% lecithin; and initial commercial production was from this source. However, its cost was extremely high and a number of other raw materials were investigated. Today, commercial lecithin is generally produced from extracted soybean oil. Among the experimental sources were corn oil and soybean oil. Lecithin from corn oil showed no apparent advantages over that made from soybean oil and, today, all commercial lecithin in this country is produced from extracted soybean oil.

In this process, crude lecithin gums are obtained by "degumming" soybean oil with water. The crude lecithin is then purified by filtration, washing, and bleaching. The resultant product is a light brown semisolid having a neutral odor and taste. From this so-called standard grade, other refinements are made. The material may be further bleached, made more fluid, or refined to produce a solid which is available in either powdered or granular form.

With the rise in production of extracted soybean oil, the availability of commercial lecithin has increased tremendously. In 1946, approximately 2 million pounds were sold. Production had expanded by 1956 to more than 33 million pounds. And with this increase in production, the price has dropped accordingly. From a high of $30 per pound as made from egg yolk, the cost has now been reduced to a range of 15¢ to $1.65 per pound, depending on the type and quantity required.

Dry Lecithin Granules

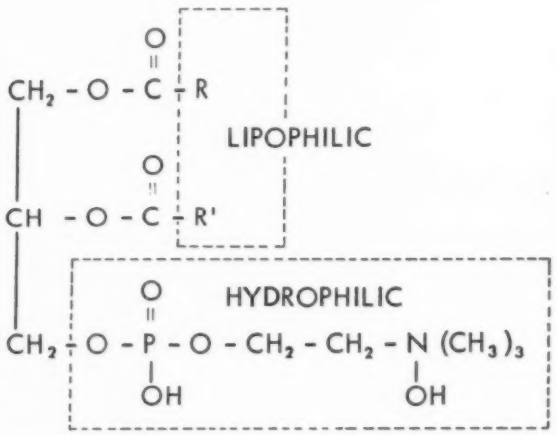
The term commercial soybean lecithin, or simply lecithin, is applied to a complex mixture of natural phosphatides containing not only true lecithin, but also cephalin and lipositol.

*Manager, Chemical Department, A. E. Staley Mfg. Co., Decatur, Ill.

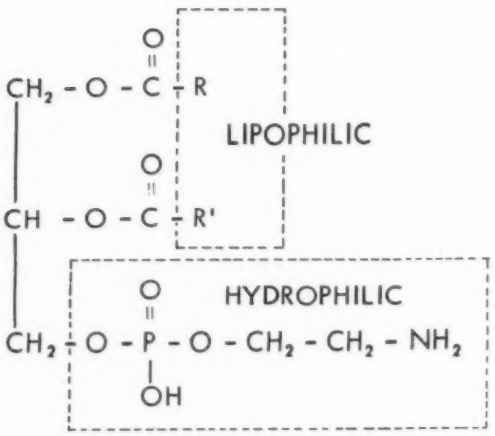
The structural formulas for true lecithin and cephalin are shown in Figures 1 and 2. The molecular structure for lipositols has not been definitely established, but they are know to contain glycerol, fatty acids, inositol, galactose, ethanolamine and phosphoric acid. They all contain phosphoric acid radicals which are further esterified with organic compounds such as choline, serine, and ethanolamine.

As has been shown in the illustrated formulas, lecithin constituents contain segments having affinity for water (hydrophilic) and other segments having affinity for fats (lipophilic).

Chemically, what is soybean lecithin? (We believe this has been shown above, but if you wish to expand it, here is our definition: "Commercial lecithin is a complex mixture of phospholipids, or phosphatides, with soybean oil as a solvent or carrier. It contains glycerol, fatty acids, phosphoric acid, ethanolamine, choline, inositol and various other constituents in small amounts.")



LECITHIN



CEPHALIN

NOTE: R and R' are fatty acid groups.

Refined Lecithin (Granular or Powdered)

Physical Properties

Appearance . . . Light yellow, dry, free-flowing, granular material.

Odor; Taste . . Bland.

Solubility . . . . Dispersible in water. Soluble in animal, mineral and vegetable fats and oils. Soluble in diethyl ether and various hydrocarbon solvents such as hexane. Insoluble in acetone and ethyl acetate.

Average Analysis

Acetone Insolubles	95.0%
Moisture	1.0%
Acid Value	32
Free Fatty Acids	1.0%
Ash	9.0%
Petroleum-Ether Insolubles	0.40%
Nitrogen	1.0%
Phosphorus	3.3%

NOTE: 2% Calcium Phosphate Tribasic N. F. added to prevent caking.

Uses

It may be used in foods and for dietary supplementation. No medicinal or therapeutic claims are made since the role in human nutrition of choline, inositol and other naturally occurring substances of lecithin has not been clearly established. Refined Lecithin is recommended for cosmetics and in other applications where the oil content of ordinary commercial lecithin is undesirable.

Lecithin Concentrate

Commercial soybean lecithin is a complex fat-like material consisting of natural soybean phosphatides with soybean oil as a solvent or carrier. Although it has been demonstrated that lecithin is only one of a number of phosphatides present in the commercial soybean lecithin product, the mixture, due to long usage, is generally called soybean lecithin or just lecithin. Sta-Sol* lecithin concentrate consists of a mixture of approximately 65% soybean phosphatides and 35% soybean oil. It is available in four types with specifications as follows:

	Type UR (Unbleached Regular)	Type UF (Unbleached Fluid)	Type BR (Bleached Regular)	Type BF (Bleached Fluid)
Moisture—max.	1.0%	1.0%	1.0%	1.0%
Acetone Insoluble—max.	68.5%	64.0%	68.5%	64.0%
min.	64.0%	60.0%	64.0%	60.0%
Free Fatty Acids—max.	6.0%	8.0%	6.0%	8.0%
Color—Lovibond—max.	25^{Y}—2.5^{R}	25^{Y}—2.5^{R}	10^{Y}—1.0^{R}	5^{Y}—0.5^{R}
Consistency	Plastic	Fluid	Plastic	Fluid
Penetration (m.m.) Penetrometer	5.30		5.30	
Viscosity (sec.) Mobilometer—200 gr. 10 cm.—80 F—max.		85		85
min.		20		20
Benzene Insoluble—max.	.08%	.08%	.08%	.08%
Specific Gravity	1.03	1.03	1.03	1.03

Phosphatides differ from fats in that they contain phosphorous and nitrogen in addition to the constituents of simple fats. Due to their chemical compositions they display a number of interesting properties.

Some parts of the phosphatide structures are attracted by water and other parts are attracted by fats. This makes lecithin an effective emulsifying agent with the ability to spread, wet disperse and penetrate materials containing either water or fat.

Lecithin is an active antioxidant, capable of stabilizing fats and oils under certain conditions for long periods of time. It is mainly for its emulsifying and antioxidative

*Registered trade mark of A. E. Staley Mfg. Co.

properties that lecithin is commercially valuable.

In soaps its ability to emulsify and disperse fats in water is utilized. In cosmetics, lotions and shaving cream it is used for penetrating power and softening effects. It is used as a penetrating agent in wood preservation and in the tanning of leather. Its wetting and moisture retaining properties are useful in the preparation of adhesives, paints, plastics, rubber, textiles, printing inks, lubricating oils, and many other products.

The choice of type depends largely on the users preference for color and ease of handling. In most products any of the four types may be used with equal effectiveness.

Among the diverse constitutents of lecithin, there are segments having affinity for water and other segments having affinity for fats. Lecithin is for this reason a highly effective emulsifier and stabilizer. It lowers surface and interfacial tensions and promotes the melting of solids. It is readily dispersible in vegetable oils and forms colloidal emulsions in water that are stable and may be diluted considerably.

The phosphatides, as a group, have definite softening effects rendering the skin more pliable. This emollient property, together with a deeply penetrating effect, is particularly applicable in cosmetics. It has even been suggested that lecithin stimulates the skin by promoting the renewal of the skin cells.

In soap manufacture, lecithin is recognized as a superfatting agent and inhibitor of hydrolysis. It therefore contributes to the mildness of the soap and minimizes the formation of free alkali, a possible cause of skin irritation by soaps.

Lecithin is also useful in soaps as a lather stabilizer. It influences the formation of a smaller, more stable bubble; this smaller bubble promotes better cleansing action.

In chocolates and chocolate coatings, lecithin is added to improve dispersion and to increase the "spread" of the coating. It also minimizes the "bloom" or graying of chocolates in storage. In oleomargarine, lecithin is used extensively to obtain more rapid and uniform mixing and to improve the consistency of the product. Its pronounced antioxidative action is still another additional advantage in lard and shortenings.

Some of the other major applications of lecithin include bakery products, to improve distribution of the fat and to increase shelf life; in the leather industry, where it is added to the "fat liquors" for its softening action on the leather; in textiles, to lubricate the fibers and improve the "hand" or feel of the cloth; in paints and printing inks, to promote better wetting and dispersion of pigments; and in petroleum lubricants, for inhibiting formation of sludge and varnish.

In the cosmetic industry, lecithin is becoming of increasing interest for its emulsifying and stabilizing properties and because of its emollient and penetrating action. Since the skin is composed of approximately 0.4% lecithin, it has been theorized that the presence of lecithin in skin creams will replenish the lecithin which is depleted by bathing or perspiring.

Because it is an excellent emulsifier, lecithin is particularly recommended in soaps and cosmetics dispensed in aerosol-type containers. This application has recently received special attention due to recent sales gains with this form of packaging.

It should be pointed out that commercial lecithin is a natural vegetable product of edible quality. Therefore, its use creates no toxicity problems nor are there any labeling difficulties. Also, being a vegetable product, it does not have the objectionable odor associated with some products of animal origin.

In view of the recent widespread attention on royal jelly as a cosmetic ingredient, there is one additional factor concerning lecithin which may be of interest. This is its vitamin content. Although authorities do not agree on the value of vitamins in beauty preparations, it is understood that the high vitamin content of royal jelly has been heavily stressed.

For example, pantothenic acid has been singled out as being particularly significant. Yet, based on the cost per pound of the products, the pantothenic acid in royal jelly costs about 50 times as much as an equal amount in lecithin. Lecithin also contains thiamine, folic acid, riboflavin, pyridoxine, biotin, and niacin; as well as inositol and choline in considerable amounts. (Lecithin referred to here is soybean lecithin.)

Lecithin and oil proportions. Commercial lecithin concentrate contains about 65% soybean phosphatides and 35% soybean oil. This oil is not added but is retained during and after processing to act as a solvent or carrier. Since the resulting product is naturally plastic or gel-like, a small amount of soybean fatty acids (about 2%) may be added to make it more fluid. Also, a major part of the oil may be extracted with acetone to produce a refined lecithin which is available in either powdered or granular form.

Oil replacement. The soybean oil in lecithin may be replaced with other carriers. (We know of no lecithin, commercially available, in which lanolin is used as a carrier.)

Percentages. In general, the usual range recommended in cosmetics would be the same as that used in soaps, from 2% to 10%.

Discoloration, etc. When commercial lecithin was first introduced, there were occasional instances of discoloration and decomposition in emulsified products. These problems occurred during the early years of development. Improvements since made in processing methods now assure a product which is quite stable both in color and emulsification properties.

No definite recommendations as to cosmetic formulations are practicable since there are so many different products, each having specific properties and functions. Percentages of lecithin included in soaps have ranged from 2% to 10% depending on the specific advantages desired, such as emollient action, inhibition of hydrolysis, lather stabilization and better cleansing power.

Because of its versatility and its present availability at low cost, lecithin today is being tested in more and more diversified applications, not only in cosmetics, but throughout the nation's industries. In cosmetics, some of the products which may benefit from the use of lecithin include: general face creams, cleansing creams, hand creams, lotions, lip rouge, medicated creams and sunburn preparations.

The appeal in many of these applications results not only from lecithin's numerous proven advantages, but also from the fact that it is a natural product containing many factors considered essential for human health.

Price Wars

Price wars are dangerous to an industry because they affect adversely everyone in it. From ancient literature, a 2,000 year old story illustrates how one man's folly affects others. Three men were in a boat; none could swim. When they got out in midstream one man took an auger and started to bore a hole in the bottom of the boat. The other two shouted "What are you trying to do?" "Tend to your own business" he said. "I am boring a hole beneath my seat only and not beneath yours." "But" shouted the other two "we are all in the same boat."—*Sales Management.*

Progress in

Perfumery Materials—II

PAUL Z. BEDOUKIAN, Ph. D.
Author of Perfumery Synthetics and Isolates

SYNTHETIC PERFUMERY COMPOUNDS AND ISOLATES

Various factors responsible for the optimum conditions for extracting geraniol from palmarosa oil have been investigated by Indian workers (89) (90). The usefulness of infrared spectroscopic examination of citronellol and geraniol in geranium and rose oils is discussed in an authoritative article (91). The preparation of various saturated and unsaturated dimethyl octanols and their esters, possessing rose odors, are described in a British patent (92). Through the oxo process, alloocimene yields dimethyl nonanal which is of interest to the perfume and other industries (93).

The leaf alcohol, hexen-3-ol, has been shown to have the cis structure (94). Its synthesis was also examined by other workers (95).

The manufacture of phenyl ethyl alcohol by the hydrogenation of styrene oxide was described in a British patent (96). A further patent stated that aluminum or iron oxides can be used as catalysts to convert styrene oxide into phenylacetaldehyde in practically quantitative yields (97). According to a Soviet patent, phenylacetaldehyde can be obtained by the condensation of chloroacetaldehyde with benzene (98). Phenylacetaldehyde was regenerated from its trimer by the use of suitable catalysts according to a recent American patent (99). Catalytic dehydrogenation of phenoxytheanol gives satisfactory yields of phenoxyacetaldehyde, as disclosed by another Soviet patent (100).

Nitriles were reduced to the corresponding aldehydes through a new reaction (101). Aliphatic aldehydes are of great importance to the perfume industry. The corresponding alpha beta unsaturated aldehydes and their dimethyl acetals have been prepared and their odor characteristics reported (102). Alpha beta unsaturated aldehydes can be obtained by treating aldehydes or ketones with beta halovinyl ketones under suitable conditions as described in a recent patent (103). Selective dehydrogenation of certain unsaturated alcohols to the corresponding aldehydes took place by treating them with high-potential quinones (104). Alpha methylidene alkanals are converted to the corresponding alcohol without reduction of the olefinic linkage by treatment with selected catalysts under controlled conditions (105). In the preparation of pseudo-ionones, some 1-methyl-3-isopropylidene-2-(3-oxobutyl) cyclopentene was obtained (105a).

Improved methods of extracting vanillin from waste are described in a Soviet patent (106). Modified laboratory methods of preparing ethyl vanillin are claimed to give reliable results (107). Another patent discloses improved methods of producing coumarin (108).

Indole was obtained by heating substituted formamidine in the presence of alkali alcoholate at high temperatures (109).

Beta methyl cinnamic alcohol has been synthesized from acetophenone and its properties noted (110). The reaction products of alpha methyl styrene (111) and acetophenone (112) with formaldehyde were subjected to a thorough investigation. Improved methods of preparation of benzyl benzoate from benzyl chloride and sodium benzoate have been reportetd (113), and a lengthy review also appeared on its preparation (114). Oxidation of piperitone obtained from the essential oil of Eucalyptus dives of the Belgian Congo gave high yields of thymol (115).

It has been found that lactones of straight chain aliphatic 5-hydroxyacids containing between 9 and 14 carbon atoms, are useful for imparting butter-like flavor to margarine. The lactone of delta hydroxydodecanoic acid is known to be an important component of butter flavor. The preparation of various lactones was given in two recent British patents (116) (117). Cyclohexylidenecyclohexanone was obtained by heating cyclohexanone in the presence of a suitable catalyst such as cyclohexylamine (118).

A series of excellent articles was published on the preparation of aromatic aldehydes. Various methods used in the preparation of benzaldehyde or its homologs are discussed, including the Gattermann-Koch reaction, the Gattermann synthesis, formulation with N-methylformanilide, the Reimer-Tiemann reaction, the Duff reaction, oxidation of alcohols to the corresponding aldehydes, the preparation of aldehydes by the reduction of acids or acid derivatives, and the production of

aldehydes from halides. Experimentation conditions are given in each article, together with comments as to the usefulness of the method (119).

The value of castor oil as a raw material yielding heptaldehyde and undecylenic acid, is stressed in a review article. The large number of perfumery materials derived from these two materials is discussed in detail (120). The same author has also published an interesting article on maltol (121). Cork oak bark as a source of material for the perfume industry is the subject of another publication (122). Methyl heptine carbonate is prepared by the interaction of amyl bromide and monosodium acetylide, the resultant sodium acetylide is then treated with carbon dioxide, and the acid esterified to give the required ester (123).

The Essential Oil Association has published standards for the following perfumery aromatics and essential oils (124): calamus, black pepper, sandalwood East Indian, Isobutyl phenyl acetate, birch tar rectified, aldehyde C-8, trichlor methyl phenyl carbinyl acetate, ethyl butyrate, aldehyde C-16, amyl acetate, amyl butyrate, fir needle oil Canadian, juniper berries, wormwood oil.

STUDIES IN TERPENES

Much of the work done with terpenes has been directed towards the utilization of readily available raw materials such as pinene or limonene, and the preparation of valuable materials for the perfume industry. Thus, conjugated menthadienes are converted to menthenes by selective hydrogenation (125). The menthenes obtained then can be used in the preparation of menthol. On chlorination of alpha pinene at low temperatures, 2,6-dichlorocamphane and bornyl chloride were obtained and a study made of their reactions (126). Pyrolysis of 4-substituted alpha pinene derivatives such as verbenol and its ethers yielded a wide range of compounds which were carefully studied (127).

The mechanism of the carvone hydrobromide-eucarvone transformation has been subjected to an investigation. Many derivatives of eucarvone have been prepared and their properties reported (129), including the preparation and study of dieucarvone (130). A method has been reported for the synthesis of citronellic acid from pulegone, through the hydrogen chloride addition compound (131).

In view of the fact that nopol is so readily available, it is not surprising to find that efforts are being made to use it as a raw material for the preparation of useful compounds. A new method was given for the preparation of levo alpha ethylapopinene from levo nopol (132), and some of its reactions were studied (133). Hydronopol has been converted to its chloride, which was then used in the synthesis of hydronopyl formaldehyde, its alcohol and acid. Hydronoyl acetaldehyde and its acid have also been prepared (134). According to a recent French patent, when turpentine is treated with trioxymethylene under suitable conditions, good yields of nopinenylmethanols are obtained.

According to another patent, carvone can be obtained by treating 8-hydroxycarvotanacetone with a suitable acid anhydride (136). Verbenone was prepared from alpha pinene by first subjecting pinene to air oxidation to obtain 3-pinen-2-ol and then oxidizing it to obtain verbenone (137). Two syntheses of dl-pulegone were reported recently (138) (139), and a new synthesis of dl-phellandral (140).

Condensation of limonene and menthene with formaldehyde yielded beta gamma unsaturated alcohols. These were fully investigated along with a number of other similar unsaturated carbinols. Chromic acid oxidation of these alcohols gave aldehydes of great interest to the perfume industry (141).

The usefulness of the Carroll reaction in the synthesis of materials of value to the perfumer is amply illustrated by a number of studies. Thus, methyl heptenone is obtained in good yields by the interaction of ethyl acetoacetate with 2-methyl-3-buten-2-ol. Pseudoionone can be prepared by treating dehydrolinalool with ethyl acetoacetate. Various other reactions were reported in this most interesting paper (142).

In a lengthy study on the effect of substituents on the cyclization of terpenes, various synthetic compounds were prepared and attempts were made to cyclize them by treatment with acidic reagents. As a result of this study, it was concluded that compounds with a lone methyl group cyclize, though less readily than regular terpenes. However, compounds without a geminal dimethyl group or a methyl or ethyl group instead of a dimethyl group, do not cyclize (143).

The cyclization of linalool to alpha terpineol has always been a puzzling reaction, since the asymmetric carbon atom of linalool is destroyed during cyclization and a new asymmetric carbon atom is created. One might therefore expect an optically inactive terpineol. The terpineol formed, however, is optically active and always possesses an opposite sign to the linalool used. This has now been explained on the basis of the absolute configuration of linalool (144).

SESQUITERPENES

As a result of continued studies in sesquiterpenes, the structure of some of them is being elucidated. Many of these structures are quite unusual and indicate new avenues of research in perfume materials. For example, as a result of magnetic resonance spectra studies, the following structures were assigned to helenalin (I) and isohelenalin (II) (145). Oil of vetivert was found to contain about 6 per cent of tricyclovetivene possessing the structure III (146). Acorone was found to have the following unusual structure (IV) and is thus the first naturally occurring compound known to possess a spirane skeleton (147). Labdanolic acid extracted from gum labdanum has been shown to have the structure V (148). The old established formula of alantolactone was found to be incorrect and structure VI assigned to it (149).

Monocyclic sesquiterpenes are now being studied and there is the possibility that some of them possess hitherto unsuspected structures. Thus, an eleven-membered ring structure is assigned to the ketone zerumbone (150). Pyrethrosin may have a ten-membered ring structure (151).

Junenol, a new sesquiterpene alcohol isolated from juniper oil, is shown to belong to the cadinane type (152). The sesquiterpene, carissone, has been prepared from alpha eudesmol (153). A new sesquiterpene alcohol has been isolated from the wood of Thuja occidentalis, and a structure assigned to it (154). Other workers have reported the synthesis of two dimethyl eudalenes (155).

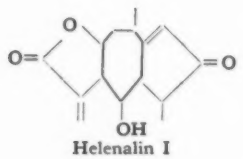
REPORTS ON ESSENTIAL OILS

The increasing number of reports on the cultivation of essential oil bearing plants and quality control of the oils from eastern European countries, indicates the importance attached to this phase of their agricultural economy.

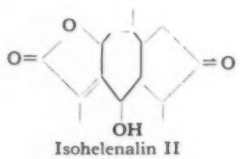
Bulgaria, long known for its incomparable otto of rose oil, has became an important producer of a number of other essential oils. Thus, cultivation of clary sage has been studied with special attention to yield and quality of its oil (156). Various other factors, such as the relation between the time of gathering blossoms and the

yield and quality of the oil, were also investigated (157). The properties of the oil obtained from Acorus calamus grown in Bulgaria have been reported (158). In another publication (159) the importance of oil of zdravetz to the perfume industry was pointed out.

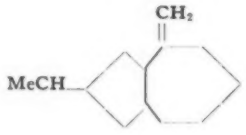
Since rose oil is the most important essential oil produced in Bulgaria, it is to be expected that considerable attention is being given to the production and quality control of this oil. The highest yield of oil is obtained in the morning between 5:30 and 7 a.m. By noon, there is a decrease in the oil content of about 30-40%, and by evening, the oil content is only about one third of the morning yield (160). Investigation of the oil obtained from rose flowers at various stages of development, showed that the best yields were obtained when all the petals are opened and the stamens are pale yellow (161). A study of the influence of atmospheric conditions on the yield of oil determined that cloudiness decreases the yield, but that there is no relationship between relative humidity and the yield of oil (162). It was also found that the petals yield about 92 per cent of the total oil, the stamens, about 4.6 per cent, and the stigmas and pistils, very little (163). Contrary to previous reports, storage of the rose petals in 20 per cent salt solution did not change their oil content (164). Chromatographic analysis of rose oil indicated the presence of 11-28% hydrocarbons (165).



Helenalin I

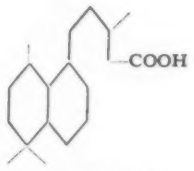


Isohelenalin II

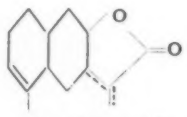


Tricyclovetivene III

Acorone IV



Labdanolic Acid V



Alantolactone VI

Other reports from eastern European countries have appeared in the chemical literature. There is a review on the cultivation and distillaton of the oil of the fruit and seed of Yugoslavian coriander (166). The properties of sage (Salvia officinalis) and of the oils derived therefrom are given in another publication (167). Oil of sweet flag obtained in Poland has been subjected to a thorough analysis and compared with the oil obtained from other countries (168). The essential oil obtained from Perilla ocimoides has been found to contain 20 per cent citral (169).

Oil of Mentha arvensis in the Ukraine had about 30 per cent linalool and 6 per cent linalyl acetate (170); oil from Mentha verticillata contained 50 per cent menthofuran (171). The chemistry of the volatile oil of middle European Mentha arvensis was subjected to a critical review in another publication (172).

Italian publications also indicate an active interest in the study of cultivation of essential oil bearing plants. A variety of Mentha spicata, probably of the Viridis group, gave an oil containing 34 per cent free alcohols as linalool and 22 per cent combined alcohols (173). Mentha spicata of the Scottish variety gave an oil having 65.5 per cent carvone. Various factors affecting the yield and quality of this oil were investigated (174). Other essential oils studied include: Helichrisum italicum (175), oil from Lippia daunensis grown in Somaliland (176), and vetivert and citronelia oils from plants grown in Somaliland (177). Experiments were conducted in the Ravenna district in Italy on the cultivation and distillation of the followng plants: lavender, sage, marjoram, Roman chamomile and Mentha paprika (178). Similar experiments were carried out in northern Italy with Achillea moschata and Achillea strata (179).

India has been from time immemorial a major producer of many exotic essential oils. In recent years, there has been increased activity in the cultivation of essential oil bearing plants and some notable scientific research in the field of terpenes. Flowers of Rosa Damascena grown in four localities in Kanpur were steam distilled and the oil subjected to an examination (180). The flowers of Plumeria acutifolia on steam distillation gave an oil which was rich in geraniol, citronellol, farnesol, linalcool, and phenylethyl alcohol (181). The Indian plant, Mentha arvensis gave an oil extremely rich in menthol. Thus, 55.6% of the menthol crystallized out, while the remaining oil was found to contain 24.4% menthyl acetate, 44.8% menthol, and 24.6% menthone. The hydrocarbons amounted to 6.2% (182). The essential oil of Acorus calamus as obtained in India contained 80% asarone (183). Other oils investigated were obtained from Tagetus patula which was found to have 42-53% ketones as tagetone (184). The essential oil of the leaf of Piper betel was found to be rich in phenolic aromatic compounds, notably eugenol (27-43%) (185). Investigational work on the constituents of Indian essential oils included the isolation of alpha and beta santalenes by efficient fractional distillation (186), the isolation of a solid sesquiterpene primary alcohol from Indian vetivert oil (187), and the confirmation of the structure of mint glioxal found in Indian spearmint oil (188).

The essential oil of Artemisia capillaris obtained in Japan has been found to possess antifungal activity and the active principle subjected to a study (189). The essential oil of Orthodon angustifolium was found to contain 72% thymol and 20% para cymene among other constituents (190). A new terpeneic ketone, rotundifolone, has been isolated from Mentha rotoundifolia (191) and its structure identified as 1-methyl-4-isopropylidene -1, 2-epoxycyclohexane-3-one (192). Osmane, the odorous principle of the flowers of Osmanthus fragrans, was synthesized (193). A large number of components of the essential oil obtained from tobacco leaves have been isolated and identified (194).

The essential oils of some Australian plants—Mela-

leuca ericifolia, Melaleuca viridiflora and Leptospernum liversdidgei— have been examined (195). A shrub growing in New South Wales yielded an oil having dextro citronellal as its principal constituent (196). Different variants of Backhousia myrtifolia gave an oil rich in isoelemicin (3,4,5-trimethoxypropenylbenzene), methyl eugenol (3,4-dimethoxyallylbenzene) and methyl isoeugenol (3,4-dimethoxypropenylbenzene) (197).

Essential oils obtained from a number of Argentinian plants were examined—Pluchea sagittalis, Poroyhllum lineare, Artemisis mendozana, and many others (198). Another publication lists a large number of Brazilian essential oils, including orange, tangerine, bitter orange, lemon, mandarin, various eucalyptus oils, peppermint, lemongrass, vetivert, rosewood, sassafras, etc. The physical constants and other relevant properties are also given (199). Attempts are being made to cultivate Japanese mint in Argentina (200).

A European publication gives the results of tests on the anti-bacterial action of a number of essential oil constituents (201). A critical examination of the essential oil of clary sage determined the relative percentages of a large number of its components (202). There is an extensive review of the sesquiterpenes found in the essential oils of the Belgian Congo (203).

Examination of American lemon oil resulted in the isolation and identification of a number of substituted coumarins (204). The structure of a new ketone isolated from Mentha rotundifolia has been investigated (205). A critical examination of Oil of Black Pepper (piper nigrum) indicated that the odor is due to a small amount of oxygenated ingredients (206).

Another interesting study gives an account of the production, properties, and ultra violet examination of Florida citrus oils, including orange, tangerine, grapefruit and Persian lime (207). Examination of savin oil indicated the presence of 20% d-sabinene, 40% d-sabinyl acetate, the balance consisting of a large number of other constituents (208).

An improved apparatus is described for the production of essential oils from leaves by steam distillation, in which the distillate aqueous layer is returned to the top of the plant material through a liquid seal in the lid of the still. This facilitates stripping of any oil in the distillate water, thus giving improved yields of oil (209).

BOOKS AND REVIEWS

A number of books published during the past year are of interest to the industry, a few of which are listed below:

Internationaler Riechstoff-Kodex, Erganzungsband I. by Arno Muller (210).

Schimmel Briefs, Vol. II, Collection of Schimmel Briefs of 1951-1956 (211).

Formulaire de Parfumerie, Vol. I-III by Cerbelaud (212).

Parfyumeriya (Perfumery) In Russian, 2nd Edition by Fridman (213).

The Terpenes, Vol. IV and V, by Simonsen and Ross (214).

Die Atherischen Ole, Vol. IV, by Triebs (215).

Miltitzer Berichte Uber Atherischen Ole Reichstoffe USW 1956 (216).

An extensive review on advances in the chemistry of fragrant substances has appeared in a Russian publication (217).

In this fourteenth annual review by the author (218), it has again been necessary to exclude much excellent published material, in order to keep this review within the scope of this publication.

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Royal Jelly

American Perfumer and Aromatics
New York, N. Y.
Gentlemen:

I have read with interest the comment on royal jelly on page 27, of your January 1958, issue under the caption "Desiderata," by Maison G. deNavarre, F.A.I.C.

The article quoted from "Chemical Week," was admitted to me by the author as having been written without any knowledge whatsoever of the medical research work done in France and Italy in recent years at a clinical level. I assume that "Desiderata's" comment, likewise, was made without any knowledge of that work.

Working independently of each other, scientists at the University of Paris (the Sorbonne), the University of Bordeaux, the University of Florence and the University of Bologna, found royal jelly to be a remarkable substance with a specific dynamic action on human beings. Primarily, and they all came to the same conclusion, it contains an active substance, or active substances, biological (hormonal) in nature rather than chemical, that stimulate the glandular system, particularly the suprarenal and pituitary glands, and showing strong evidence that it also affects the activities of the spleen, which is also a gland-like organ, and which is the manufacturing center for blood corpuscles. We do not know as yet specifically all the glands of the body it affects. It is signifiacant, nevertheless, that it has been found, among other things, to enable people suffering with the ills of old age and without appetite, to regain appetite and put on weight, and it has helped remarkably in the development of infants suffering with malnutrition. It has proven its efficacy, through careful clinical research, by showing an increase in basic metabolism in normal men by an average of 24%.

No one should treat lightly the results of such research, unless his motive is to belittle the work done at those eminent institutions of learning in Europe.

The author makes a weak case for his attack on royal jelly when he derides it by implication due to the fact that it is about 65% water. Would he like to ridicule whole milk with a water content of 87%, or lettuce with a water content of 95%, or fresh garden tomatoes with a water content also of 95%?

Medical research is specific in pointing out that royal jelly is of no value for its vitamin content since Dr. Ardry, who holds degrees of Doctor of Science and Doctor of Pharmacy, and currently Military Pharmacist of the French Army, stated: "It has never been possible to duplicate the dynamic reaction of Royal Jelly injections in human beings with injections of the same vitamins as are contained in Royal Jelly, at doses sometimes 1000 times as concentrated." Dr. Ardry's work is published in the "Annales Pharmaceutiqués Francaises, 1947."

It seems to be in style for the press to knock royal jelly, but to do so is a confession of ignorance of the revealing work of a fine, scientific nature that has been done in medicine at a clinical level. The work done in Europe has reawakened interest in royal jelly in the United States with medical men of high rank.

Thus far the only evidence that we have from medical research work is that it is *beneficial* to man. It would seem proper for anyone who demands corroboration by research work done in this country, at least to keep an open mind on this product because a true scientist is one who would make no claims for a product without convincing proof, nor would he condemn something without equally convincing proof. The condemners today are ignoring the existing European research work and they can cite no research to justify their condemnations.

Yours very truly
R. B. Willson
R. B. Willson, Inc.

"Make More Calls"

Said the sales manager to the new salesman: "Make calls!" The more people you'll see, the more orders you'll write. After the first day, the salesman reported seven calls. Not enough, he was told, get to see more. The second day the salesman reported 10 calls. Not enough, shouted the sales manager. The third day the salesman reported 18 calls! That's fine, said the sales boss. Said the salesman enthusiastically: "Yes sir, and I'd have made even more except one buyer stopped me and asked what am I selling and for whom." All of which is another way of saying many a firm and its products aren't known by buyers or consumers—*Louis Schneider.*

Glycerine Containing Surface Conditioners

The output of toilet goods, cosmetics, including tooth pastes and shaving creams, has been reported as gaining these last few years, at a somewhat more rapid pace than population. What we have lost to dry shavers we seem to have gained in aerosols. The conventional tooth paste formulations seem to survive each year's crop of additives. While we in the Assn. of American Soap and Glycerine Products will certainly deny there is such a thing as detergent hands, we will not protest the rising use of glycerine-containing hand emollients to combat the condition—whatever its source. The other day, we read that in 1957 for the seventh successive year, the United States had a record crop of babies. I have not converted this into an annual increase in square inches of skin, but as the girl babies among them grow up, no doubt your imagination will sense the increased potential for glycerine-containing surface conditioners. Back in 1950, an informal estimate was made of 24 million pounds for toilet goods and drugs taken together. This might be up to 30 million, too, by now.—*E. Scott Pattison, manager, Glycerine Producers Assn.*

AMINE-Thioglycolate-Ammonia System for Cold Permanent Waving

DR. R. HEILENGOTTER[1] and R. KOMARONY[2]

Alkaline thioglycolate solutions have been widely used for many years as curling agents in cold permanent waving. These solutions are usually made by neutralizing aqueous solutions of thioglycolic acid with an alkali, and then adding sufficient alkali in excess to bring the solution to pH 9.5 approximately. Ammonia has been most generally used for this purpose because it is inexpensive, easily handled, and effective. The amount of ammonia required for a good softening action on the keratin of the hair, however, tends to irritate the skin on an operator's hands, so there has been considerable research for less irritating alkaline substitutes.

Among the compounds studied, monoethanolamine became important because it seemed to be less irritating than ammonia on the human skin, but the reports on it are not in agreement.[1,2] It was of interest, therefore, to establish by means of measurements the effects of a monoethanolamine-thioglycolate-monoethanolamine solution in comparison with those of the usual ammonium-thioglycolate-ammonia system. In reports on these[3,4] and analogous systems[5] it has been shown that triethanolamine and sodium hydroxide are not suitable for these purposes, but that ammonium hydroxide and monoethanolamine produce solutions with good hair-softening properties.

When producing curls in human hair, it is important not only to control the softening action of the alkaline system applied, but also to control and to judge the quality of the resulting curls. The curled hair should be elastic, not rigid; and not hard, but soft and in natural condition. Although the MEA-thio-MEA system has good softening action, it tends to produce curls that are hard and not elastic so it must be especially modified to avoid this disadvantage.

In some tests, other alkalies, such as sodium and potassium carbonate, alkylolamines, and other amines, have been used to form the thioglycolate, but ammonium hydroxide is still used for the free alkali, so mixed systems have resulted. Although it is possible to foretell something of the effect produced by use of a certain cation, it is still of interest to determine the softening action of such systems by exact measurements. In an earlier program of testing, measurements were taken on the following mixed systems:

a) Sodium alkali—Thioglycolate—Ammonia
b) Monoethanolamine—Thioglycolate Ammonia
c) Ammonium alkali—Thioglycolate—Ammonia
d) Isopropanolamine—Thioglycolate—Ammonia
e) Ethylenediamine—Thioglycolate—Ammonia
f) Diethanolamine—Thioglycolate—Ammonia
g) Triethanolamine—Thioglycolate—Ammonia

[1]Research Laboratory, Neuchatel, Switzerland
[2]Research Laboratory, Indola N. V., The Hague, Holland

Each solution was compounded approximately as follows:

Thioglycolic acid	5%
Sodium sulfite (Na_2SO_3)	4
Detergent	0.1
Ammonium hydroxide (25%; sp. gr. 0.910)	7.0 ml
Water	100.0 ml

The thioglycolic acid was neutralized to pH 7 in each case with one of the alkalies listed above (*a* to *g*) before the free ammonia was added. In accurate analysis the solutions showed data as follows:

	Free ammonia 25%: ml/L	Thioglycolic acid g/100 ml	Sodium sulfite g Na_2SO_3/100 ml	*p*H electrom.
a)	69.8	5.09	4.28	9.83
b)	69.0	5.46	4.32	9.60
c)	69.0	5.27	4.44	9.58
d)	68.4	4.98	4.36	9.54
e)	70.5	5.12	4.44	9.41
f)	67.5	5.09	4.10	9.38
g)	68.2	5.35	4.22	9.15

The systems have been arranged in order of decreasing *p*H.

The softening action of each solution was measured without destroying the hair. The curve of the stretching load for a single hair was determined before treatment; the hair was then released and allowed to contract to its original length. The hair was next immersed for five minutes in the solution to be tested, in an open cup at 20°C; then rinsed with water, and immediately stretched again to measure the load-curve after treatment, without oxidation.

All the hair used for these tests was of the same quality, 80-90μ in diameter in order to avoid the divergent results which might occur because of the recognized variability of human hair.[6,7,8] All measurements were made under water because if they were made in air it would be necessary to maintain the hair at constant dryness, and this would take too much time. Another reason for this is that oxidation in the air might cause wrong results through rebuilding the disulfide linkages in the hair.

The curves for stretching loads for treated and untreated hair were compared, and the difference in the loads required to stretch the hair 20% (the so-called 20% index), expressed as a percentage, indicates the change in the strength of the hair. The difference between this figure and 100 is taken as the softening power of the respective solution. The

results of the tests were as follows:

Cation	Softening, % (1)	(2)	Aver.	pH
a) Sodium	43.7	42.2	43.0	9.83
b) Monoethanolamine	45.7	47.1	46.4	9.60
c) Ammonium	47.8	52.2	48.1	9.58
d) Isopropanolamine	34.8	35.0	34.9	9.54
e) Ethylenediamine	26.0	29.0	27.5	9.41
f) Diethanolamine	26.3	27.4	26.8	9.41
g) Triethanolamine	12.4	11.8	12.1	9.15

It can be clearly stated that the activity of the different systems depends on the *p*H. The systems with monoethanolamine-(*b*) and ammonium-(*c*) thioglycolate-ammonia are practically equally effective, but the quality of the curls produced is better with the ammonium system. This has been confirmed by tests on living human hair. The sodium system (*a*) develops powerful activity, but the hair inevitably reteriorates. The effects of isopropanolamine (*d*), ethylenediamine (*e*), and diethanolamine (*f*) are weaker; and triethanolamine (*g*) is so weak in softening action that it must be considered unsuitable for the production of strong curls in a reasonably short time.

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Judging the Quality of Palm Oil

PAUL I. SMITH

Palm oil is one of the most important vegetable oils available to the soaper. The African oil palm (Elaeis guineensis) is indigenous to West Africa, but other varieties are found in Malaya and Indonesia. Palm kernel oil is widely different from palm oil in its constitution and properties and this short note refers specifically to palm oil only.

There are two varieties of oil palm—the King Palm and the Ordinary Palm. The former is found along the sandy country bordering the seashore and lagoons, whereas commercial palm oil is made from the Ordinary Palm which grows mainly in the Palm belt in West Africa and to a lesser extent in South East Asia. The Palm, known as the Oil Palm belongs to the order of plants known as Palmae—tribe cocoineae, whilst its botanical name is Elaeis guineensis. The fruit consists of a kernel (Endosperm) enclosed in a skin (Testa) which is again enclosed by a hard shell (Endocarp) of varying thickness, and which has three eyes (Apical Pores), one of which corresponds to the embryo of the kernel. This hard shell is surrounded by the outer fleshy, oily covering of the Palm Fruit, known as the Pericarp, from which the palm oil of commerce is produced. When unripe, these fruits are a shiny black colour, but when ripened—which takes from 4 to 6 months—the base becomes a bright yellow colour, shading off towards the top to red-yellow and finally at the apex to deep crimson brown.

Each individual sample of palm oil can vary according to method of manufacture, amount and type of fermentation undergone by the Palm Fruit before use, temperature to which the oil has been subjected and the time occupied in transit both from the plantations to the factories for expression of oil and from the factories to the ultimate buyer, in this case, the soaper. During the last few years very appreciable technological progress has been made in the collecting, handling and marketing of oil palm produce and the setting up of Regional Marketing Boards in Nigeria has resulted in an appreciable improvement in quality, this being due largely to a price incentive scheme. The bulk of the output of palm oil is, contrary to popular conception, still obtained from native producers drawing supplies from wild palms, as has been done for a long time.

Prior to 1939 the palm oil from Salt Pond and Appam producers contained water, dirt and other impurities from 4-12%. Fortunately gross contamination of this kind is not so prevalent and there is today a notable keenness to produce high grade and largely uncontaminated oils. It is, of course, difficult for the soaper operating at such long range from the actual producer to be knowledgeable on the quality of oil supplied, which may come from Gambia, Gold Coast, Malaya, Nigeria or Sierra Leone or from the Belgian Congo and a dozen other locations in Africa and Asia. From experience it would appear that Nigerian oil has so improved in quality that generally speaking this is now considered to be very reliable. It is significant that in 1950 only 0.3 thousand tons of special grade oil was produced whereas in 1955 this figure had increased to 129.5 thousand tons.

If the soaper is to avoid stocking up with oil of varying quality, he would be wise not to change from source to source with every fluctuation in price, but by careful quality appraisal to determine the best for his needs and to stick to this. The presence of an unusually high proportion of free fatty acids in the oil, which is a characteristic of the Salt Pond (hard) grade of West African palm, may prove a very serious embarrassment to the soaper and it is very much to his advantage to ensure uniformity of quality in his purchases. This he can best do by determining first of all the most reliable country of supply and then to examine the different types produced from a particular territory. There is a difference, easy to determine by chemical tests, between the oil from French West Africa and Nigeria and between the Belgian Congo and Sierra Leone. Uniformity of quality can be safeguarded by maintaining uniformity of supply, once it has been determined that a particular district offers the best oil for a specific soap.

Toxicity Problems of Cosmetics

Cosmetics, as a group, is a relatively safe class of chemicals in comparison with most products used in the home. When one considers the low frequency of reported intolerance among the millions of persons who regularly use cosmetics, the incidence of skin reaction to these products appears to be quite small. Accurate information concerning the number and types of cases of injury from a given product, from a class of products, or from the group as a whole is not known, and the development of an answer to this question constitutes one of the leading toxicity problems of cosmetics.

BERNARD E. CONLEY, Ph.D.,* Chicago

Possible Hazards from Chemicals in Cosmetic Products

Reactions from cosmetics are less likely to be reported than those from drugs because the users are not under medical supervision. Unless the reactions are prolonged or incapacitating, they are not likely to be observed by physicians and even less likely to be reported in the literature or to the manufacturer. The most reliable information concerning dangers of cosmetics comes from surveys and other studies of the incidence of accidental poisoning now being conducted by the American Red Cross and the Poison Control Center of the New York City Department of Health. Reviews of more than 15,000 reports of poisonings due to accidental ingestion of chemicals, received by the Committee on Toxicology over a 24-month period from various sources, revealed that cosmetics were involved in 3% of the cases. This incidence exceeds the 1:115 frequency of cosmetic injuries as determined from 1,376 newspaper accounts of accidental poisonings, clippings being received from throughout the United States for an equivalent period.

These admittedly limited statistics suggest that cosmetic products which are susceptible to misuse and which may produce injury are comparatively few. Liquid cosmetics, such as nail preparations (lacquers, polishes, cuticle and polish removers), hair preparations (brilliantines, permanent waving solutions and neutralizers, shampoos), colognes and perfumes, and various types of hair and body lotions, were most often cited in these accident reports, although solid and semisolid preparations were occasionally implicated.

The number and diversity of chemicals contained in these misused cosmetics preclude detailed listing. The more potentially hazardous ingredients in such products are strongly alkaline substances, petroleum distillates, metallic salts, and a multitude of organic chemicals of varying concentration and potency. The toxic effects of most of these ingredients, especially on very young persons, have been demonstrated clinically as well as experimentally. No issue can reasonably be raised concerning their dangers with this type of unintended exposure.

The proposition has been advanced that common household chemicals, with a record of accidental misuse, be required to carry precautionary labeling when they contain potentially harmful ingredients. This proposal is aimed at reducing careless and ignorant handling and storage of chemicals in the home. Its applicability to cosmetics should be limited to those products whose contents and record of use indicate that precautionary labeling is needed.

No reasonable objection can be raised if identification of hazardous ingredients in a product is required on the label; however, the excessive use of caution statements on items unlikely to cause harm in customary use or in normally anticipated misuse decreases the value of warnings on items which need such labeling. This, then, points to a second toxicity problem of cosmetics; namely, what criteria may be used to evaluate hazards from chemicals in products so widely used?

*Secretary, Committee on Toxicology, American Medical Assn. Presented at the Symposium on Cosmetics, New York, Dec. 27, 1956. Reprinted from the Journal of the American Medical Assn., Feb. 8, 1958, Vol. 166 No. 6 pp 638. Copyright 1958 by American Medical Assn.

There are no official standards for measuring the over-all safety of chemicals. Toxicological requirements are continually changing with the acquisition of new knowledge, which precludes the use of any rigid system of standards. Every new chemical and each new use present their own peculiar problems, and each has to be judged on its individual characteristics.

It should be stressed that there is no requirement for proof of safety of the ingredients in a cosmetic under existing federal law. Such tests as are performed on a cosmetic are undertaken because of the business acumen and social consciousness of the manufacturer. Some cosmetic manufacturers acquire basic toxicity data, such as the median lethal dose of the chemical or mixture, its local toxic effects on the skin and mucous membranes after single and multiple exposures, and its sensitizing potential. The procedures employed to obtain these needed facts are well known and need no delineation. However, the safety of a cosmetic chemical or mixture cannot be judged solely on the basis of its intrinsic toxicity. The circumstances of use must also be considered.

Usage Factors in Evaluating Safety of Cosmetics

A sound appraisal of the safety of a cosmetic requires two kinds of facts—namely, toxicity data and usage information. The two types of required knowledge, while separate and distinct, are also interdependent, that is, the toxicity information required for a new compound depends to a certain extent on its intended use. For example, data concerning eye irritation are needed for mascara, shampoos, or other types of products intended for the eyes or those likely to come in contact with the eyes. On the other hand, this type of information would not be needed for antiperspirants or lipsticks. However, both of these products would more likely need the type of data provided by a repeated-application test than would a shampoo or a similarly used product.

Although the usage factors involved in the appraisal of the safety of cosmetics are multiple, there are four main considerations: (1) degree of exposure to the product; (2) extent of exposure; (3) necessity for use; and (4) possibility of misuse. Concerning the degree of exposure, it should be determined whether use of a cosmetic requires a relatively short exposure to comparatively large concentrations of the product, such as occurs with shampoos, or whether it involves a more or less prolonged or sustained exposure to small amounts of the product, such as occurs with hair dyes. It should also be determined whether substances of a related, potentially injurious nature from other and unrelated sources, such as fur dyes or drugs, may be involved and whether the average user of the cosmetic is likely to be aware of all sources of exposure. The significance of this facet of the usage problem is illustrated by the oxidation-type hair dyes and certain synthetic resins for which there are a variety of noncosmetic uses and to which a considerable number of people are highly sensitive.

The extent of exposure is the second usage factor to be considered. How large a number of people will use the product? Is the penalty of misuse of the product likely to be obvious to the majority of users? The importance of this factor was recently reaffirmed with the introduction and use of inflammable hair sprays. The danger in the application of these products while the user is smoking was not readily apparent, with the result that mishaps occurred.

The likelihood of injury to children and others not directly involved in the application of products is also important to determine. The unfortunate series of accidental poisonings and fatalities involving potassium bromate neutralizing solutions employed in permanent waving is eloquent testimony to the importance of this potential source of hazard. Too often uninformed and unsuspecting parents place cosmetics in food-storage places or within the reach of their small and inquisitive offspring. When the cosmetics contain more or less potent materials, the consequences of this carelessness are all too evident. It is small comfort to the manufacturer that this was a nonprescribed use, and it is of no comfort to the parent that the manufacturer may have been to blame in not providing appropriate caution statements.

The necessity for use is the third major consideration to be evaluated, particularly as it relates to cosmetic ingredients. More and more there is a tendency to use pharmacologically active agents in cosmetics. We now have antibiotics, bacteriostatics, hormones, and vitamins as cosmetic constituents. The use of these drugs for cosmetic benefit poses questions far beyond their intended esthetic effect. For example, will the use of such agents enhance existing problems, such as the development of resistant micro-organisms; will they excite or augment latent metabolic disturbances, such as cancer and diabetes; or will their use increase the possibility of constitutional responses to sensitizing agents and intoxicants? A corollary to this item is the question of whether the benefits attributable to the ingredient justify the risks which may be envisioned for it in the common or customary use of the cosmetic.

The possibility of misuse is the fourth and final factor to be studied. There are two aspects of misuse which require evaluation. First, it should be determined whether there will be any temptation to use the product excessively or for purposes other than those proposed. The use of a *p*-phenylenediamine-type hair dye as an eyelash dye is an excellent example of this hazard. It also should be calculated whether regulatory control to minimize misuse is possible and practical at the consumer level. This can be illustrated again by this class of hair dyes. They are required to carry warning labels to caution against the danger of misuse about the eyes.

Comment

The toxicity problems of cosmetics are intrinsically the same as for other household contactants, such as antiseptics, disinfectants, and cleaning agents. However, it must be emphasized that cosmetics have the peculiar characteristic of practically cradle-to-grave skin contact. Therefore, the problem of determining safety is much more challenging because of possible delayed toxic effects and the complexity and diversity of sensitization phenomena. Since the ingredients used in cosmetics are increasing in number and since the manner of their formulation is steadily expanding, more definitive experiments and greater information concerning biological properties are needed on the safety of new compounds than have been customarily acquired heretofore. More highly controlled product evaluation is also needed if the generally favorable record of safety of cosmetics is to be maintained.

Cosmetic reactions are an inevitable consequence of this rapidly changing technology. Their severity can be minimized and their incidence reduced by eliminating impurities in ingredients and containers and by eliminating proved sensitizing agents in formulation. Although it may not always be possible to obtain the perfection suggested by these two aims, every effort consistent with cosmetic requirements should be made to effect their attainment.

Prerequsites of Top Quality Perfume

Reaching agreement on what type of woman is most attractive is rather difficult. One man likes a petite brunette. Another a hefty blonde. Still someone else chooses a willowy redhead. Obviously in this area, as in others, one man's fancy is another man's poison.

But there is one *aspect of womanly charm* on which I trust we can all agree. And this is that a fine perfume is an important *accessory* of feminine smartness and for that reason, its quality is a very personal matter for an elegant woman. There is *a constant question* in the mind of most women *as to which* perfume has the distinctive properties which make it *so outstanding* that it will increase her own charm, her personality and her appeal.

If we want to discuss today what these distinctive properties are, we will have to *evaluate the perfume* from its *intellectual* and *sentimental* value and also from its plain functional action, which means how it behaves on a woman's skin. In other words, we are beginning here where any perfumer would before he can create a perfume. We must *try first to conclude* what the essential prerequisites of a high quality perfume are!

I would say that the prerequisites of a top perfume can be divided into two groups: one group has to do with skill and technique and the other group has to do with esthetics.

ERNEST SHIFTAN*

Technical Prerequisites

The technical prerequisites can be defined as follows: the perfume has to have a bouquet which is harmonious in its proportions, is lasting and diffuse.

"Harmonious bouquet" requires little explanation. It *means selecting* from the many natural and synthetic fragrances we have available, those which *are suitable* for a desired effect, and blending them in such proportions that their individual fragrances unite to yield this desired effect.

By the lasting quality of a perfume, we generally mean *the persistence of a fragrance* on the skin. It is essential that the typical note of a perfume be sustained on the skin for as *long a time as possible*, and that it is *intense* enough to *attract* attention. An important point, and one often not recognized, is that how well a fragrance is fixed—that is, how permanent it is—cannot always be determined on the smelling blotter used by many perfumers. We must not forget that the living skin and the perfume are both chemical in character; the reaction between them is different from that between *paper and perfume*. Hence, the only sure test of "lastingness" must be made in use.

A perfume's diffusion or radiance *is its tendency to spread out* by itself into the space surrounding the person wearing that particular fragrance. You are all familiar with what happens when a bottle of ammonia, benzene or ether is opened. Its odor is immediately noticeable in the entire room in which the bottle is opened, and probably in adjoining rooms as well, even if they are separated by closed doors. *If a perfume has a similar property* we call it "diffusion." A perfume can be very pleasant if you smell it directly on the skin but it also has to have the quality of being noticed from a distance. It should even linger for a certain time in the air after the person who wears the perfume has left the room. To get a feeling for this effect, just imagine how women like to be sure that those who follow in their footsteps will think "somebody lovely just passed by."

The distinctive function to diffuse is one of the features of a perfume which *contributes* also to its brightness and brilliance. It is important, however, not to confuse diffusion with strength. The two are not identical. Strength, which depends more on the type of a fragrance, is quantity of odor noticeable. *Again we must*

*Vice President and Chief Perfumer, van Ameringen-Haebler Inc. Paper read before the Fourth Symposium of the American Society of Perfumers, March 20, 1958.

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remember that the *effect on the skin* is the *main consideration*, for a perfumer often compounds blends which seem very strong, but which stay flat on the skin and do not diffuse. On the other hand, a perfume can be discrete in character but very valuable if it has great diffusion and therefore gives the impression of strength.

Now that *we have covered the technical requirements* for a top perfume, let us ask a very important question: can we expect that a perfume will be successful because it complies with all these technical requirements or, in other words, is made with the highest technical skill possible? The answer is definitely "not yet" because it still has to meet more intricate qualifications and those are the ones which have to do with esthetics.

Esthetic Prerequisites

It is probably clear to you how *I* stand on the subject of whether or not a perfume is a work of art. I definitely feel that it *has to be* one because in addition to technical perfection, the *ultimate success of the perfumer* depends on the performer's *ability to inject* into his creation *the quality of true beauty.*

His function, *like that of all artists*, is to create things which arouse *our emotions.* However, there is a *difference between perfumery and other arts.* In other arts, such as painting, sculpture, music, etc., the work may cause a feeling of happiness or sadness—elation or depression—depending on the artist's subject and his view of it. But a fine perfume is aimed at *evoking only an aura* of beauty that arouses pleasurable emotions.

A good perfume *will excite the emotions* of the woman who wears it and those in her immediate vicinity. But before anyone can create a perfume *with this unique quality*, the perfumer has to *appreciate the meaning* of beauty itself. Without *this feeling for beauty*—without this *insight*, this *sensitivity—he lacks* the *inspiration needed* for truly creative work. Only when a perfumer has artistic discrimination does he harbor the instinctive knowledge *that his perfume* will be *appealing* to the majority of people.

Last but not least, *we cannot do without* the prerequisite which I will call the *suggestive theme of a perfume.* This theme of a perfume is nothing *else but the original idea* which the perfumer tries to *express in his perfume.* It is the image which is in the perfumer's mind from the beginning to the end of his creation. For instance, if a perfumer blends an oriental type fragrance, he has in his mind the luxury of the East or, if he blends a flowery bouquet, he will think of the delightful surroundings of a garden in the summer. An idea can also stem from the love of one or several raw materials. We know that sculptors or architects *create very often because they find a material* they like very much. The same applies to perfumery and the perfumer can very well *be inspired to create* a perfume by smelling a simple new aromatic product. Out of all this *will come a new fragrance.* This creative drive—this pursuit of an idea or theme—is what distinguishes a work of *perfumery art* from a routine product. And *only* the perfume with such a *basic idea or a theme* can really stimulate the olfactory *senses of the person* who wants to enjoy perfume. In those persons, such a *stimulation will release associations* with their own memories and it will lift their feelings up from the monotony of the present to the imaginary delights of the distant.

In conclusion, I want to repeat that a high quality perfume can be achieved only by a perfumer with technical knowledge and human awareness. The perfumer must know how *to blend individual fragrances* to produce a perfume *with a harmonious bouquet:* how to achieve a fragrance that sustains its typical note on the skin for

a considerable length of time; and how to design a fragrance with *enough diffusion* to *fill the air with the aura of the person* wearing it. But more than that, he must have the creativity to express with a new fragrance something *he feels or sees in a new way* so that a distinctive response is stirred in sensitive people. These are the prerequisites of a quality perfume. And attaining such effects is perfumery at its artistic best.

Desert Perfumes

One of the most unique businesses in the southwest is run by Howard K. Foncanon and his son, William, of Albuquerque, New Mexico. This father and son team make their own perfume from the surrounding desert cactus and flowers, then sell these unusual odors in their New Mexicraft shop.

Foncanon began experimenting with the ancient art of perfume making back in 1921, but it was 1947 before he moved to New Mexico and began extracting perfumes from flora of the desert. At the present time he has eleven different fragrances in his shop. The perfumes that appeal most to people are yucca, prickly pear and pinyon. Other scents produced come from the tamarish, desert mistletoe, ginger blossom, desert jasmine, mesquite, sage and the short lived, Night-blooming Cereus.

Although women are the principal object of the Foncanon art they have also developed an aftershave lotion.

Weakness in Salesmen

A survey among 180 companies disclosed that the greatest single weakness in salesmen is *poor planning and organization* of time and effort. The "hungry" salesman quickly develops into a good planner. He calculates his time in terms of *sales* and knows that every minute wasted through bad planning and organization means sales *lost*. So he plans his days and *organizes* his calls carefully. When his well-laid plans go astray, he has anticipated this possibility and has *alternate* plans ready.
—*Arthur Fatt*

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Some Remarks on the Nature of the Fixed Phase or of the Carrier in Gas-Liquid Partition Chromatography of Essential Oils and Aromatics

BY YVES-RENE NAVES, D.SC.*

We should on no account neglect or underrate the fact that the constituents of essential oils or aromatics may be altered on contact with the fixed phase or the carrier in gas-liquid partition chromatography.

Most of the constituents of the essential oils and most of the aromatics have to be examined by gas-liquid partition chromatography at relatively high temperatures because of the prerequisites for the functioning of the usual detectors.

Substances used for the fixed phase or as carriers which are appropriate for the analysis of less fragile substances or at lower temperatures are quite unsuitable here.

It is considered necessary to mention these facts because some workers appear to be unaware of them, and others underrate their importance. It is essential that an analytical technique, whose use can be invaluable particularly to the aromatic and cosmetic industries, should not suffer from fundamental neglect.

In order to carry out gas-liquid partition chromatography efficiently, we have to bear in mind the fact that the principal constituents of essential oils and almost all aromatics are polar substances, and that most of them are able to form associations by means of hydrogen bonds. Therefore, analogous substances are to be preferred for the fixed phase.

Even if it is possible to work at pressures going as low as 40 cm. of mercury at the inlet and 10 cm. at the outlet, by using sufficiently sensitive catharometers, the working temperature should lie between 120° and 220°. This limits considerably the choice of the fixed phase.

At such temperatures, most of the heavy substances generally used in gas-liquid partition chromatography have to be removed. Thus the *n*-octyl, *n*-nonyl, isodecyl and tetrahydrofurfuryl phthalates are no longer suitable above 150-170°, nor are octadecyl stearate or orthocresyl phosphate at slightly higher temperatures. The safety margin for using these products is still further lowered by the use of certain carriers.

Certain polyethylene glycols or polypropylene glycols having a molecular weight between 800 and 1000 or their esters (e.g., polyethylene succinate), or their ether derivatives resulting from partial methylation, can be used from 180° to 190°, and alkyl (or aryl) siloxanes can be used up to 220°. At such high temperatures, however, most of these give off gases during the first few hours of use. After six to eight hours this drawback disappears and the columns can be used for a long time.

Silicones of diverse origins (Silicone Elastomers DC 123 and DC 152, Silastomers DC 132 and DC 156, Wacker's Silicone gum DC and Apiezon M grease) can be used. It is advantageous first of all to wash some of these products with ethyl acetate.

In the case of nonpolar substances, the polythenes of molecular weight 30,000 to 40,000 or perhydrosqualene may be used.

The use of phthalic or succinic esters or of some silicones is to be avoided in the case of easily dehydrated constituents of essential oils or aromatics.

The choice of the carrier is also of great importance. Diatomaceous earths lower the temperature at which the esters used as fixed phase are altered, and give rise to dehydration, condensation or other reactions of the constituents under examination. The same thing happens with the powders obtained by crushing refractory bricks (e.g., Sterchamol). Sea sand of the size between sieve 44 and sieve 52 (British standards) is often preferable, in spite of its poor retention of the fixed phase. With glass powders this disadvantage becomes too great. Sodium chloride passing through sieves 30 to 40 can be used, as it retains 5 per cent silicone grease.

The reactions which are apt to occur at the resistances in the catharometer must not be neglected. Thus dehydrogenation of the alcohols has been observed at as low as 140° in thermal conductivity cells with a platinum wire. The phenomenon may be observed through the appearance of negative peaks.

In any case it is wise to test a reference sample under the same conditions before questioning the purity of a product on the basis of gas chromatography.

*L. Givaudan & Co. Ltd., Vernier, Geneva, Switzerland. Reprinted from the Journal of the Society of Cosmetic Chemists Vol. 9, No. 2, March 1958. Presented at the August 2, 1957 meeting in Geneva, Switzerland.

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Vital Matters for Flavor Industry

Pending federal legislation on food additives vanilla bean research and other problems to be discussed by Flavoring Extract Manufacturers Assn. at its May 18-21 convention in Chicago

Subjects of vital interest to every segment of the flavoring industry will be discussed by experts and considered by members of the Flavoring Extract Manufacturers Assn. at its 49th annual convention in the Edgewater Beach hotel, Chicago, May 18-21.

It promises to be an excellent opportunity especially for technical personnel to become fully posted on the pending vanilla research program, flavoring requirements of proposed definitions and standards of identity for frozen desserts and federal food additive legislation.

As usual the convention will be opened by the hospitality party on Sunday evening May 18 which is always an enjoyable occasion when members greet old friends and meet new ones. Sunday noon the board of governors will hold a luncheon meeting.

The business sessions will be opened on Monday morning by President Myron J. Hess. Then will follow the report of E. N. Heinz Jr. chairman of the convention committee. After this Dr. A. S. Wendt will outline the business program; Jack Mulligan will report on the entertainment features and Bruce L. Durling will outline the plans for the annual golf tournament. S. M. Kleinschmidt is in charge of registration.

Following the annual address of President Myron J. Hess these papers will be presented:

"Flavor Problems in the Food Industry"—Dr. N. S. Yanick, National Dairy Products Co., Research Division.

"The Vanilla Bean Market Situation"—Ray C. Schlotterer, Secretary, Vanilla Bean Assn. of America.

Report of Executive Secretary & General Counsel—John S. Hall.

The annual golf tournament will take place Monday afternoon. In the evening a dinner dance will be held and at 9 o'clock the convention party will be invited to meet in the Casino for an unusual entertainment until midnight—a Night in Monte Carlo.

The program for Tuesday morning is as follows:

Opening Remarks—Myron J. Hess.

Scientific Research Committee Report—Dr. D. Jorysch.

"Research on Vanilla"—H. P. Burchfield, Boyce Thompson Institute for Plant Research, Inc., Yonkers, N. Y.

"How Definitions and Standards of Identity will be Developed"—J. L. Laughlin.

"Current Comments from the Federal Viewpoint"—Dr. Robert A. Osborne, Food and Drug Administration, Washington, D. C.

Question and Answer Period—Dr. A. S. Wendt, moderator.

The program for Tuesday afternoon will be taken up with a technical symposium on food additives with Dr. Richard Hall president. It will consist of the following:

Food Additives Committee Report—Dr. Richard Hall.

"Technical Aspects of Flavors as Food Additives"—Dr. Bernard Oser, Food and Drug Research Laboratories, Inc., New York.

"Chemicals in Foods—The Legal Complex"—Joseph D. Becker.

"Testing for Toxicity"—Howard Spencer.

Question and Answer Period.

The program for Wednesday morning will consist of the Treasurer's statement by Lloyd E. Smith and the report of the auditing committee. The following will then be presented:

"Production of Essential Oils in Africa"—sound film in color. Dr. Ernest Guenther.

"Production of Spice Oils in West Indies"—35 mm. colored slides with commentary—Dr. Ernest Guenther.

"Essential Oil Market Situation"—Gert Keller, President of Essential Oil Assn. of America.

The resolutions committee will then make its report after which the nominating committee consisting of Fred J. Lueders, chairman, G. F. Meyer and E. G. Allison will present its slate of officers. This will be followed by the election of officers after which the convention will be adjourned.

Entertainment

The highlight of the convention will be the President's reception Tuesday evening to be followed by the annual banquet and dance. In the afternoon a card party has been arranged for the ladies. The dinner dance and entertainment at the Casino on Monday evening also promises to be a most enjoyable affair.

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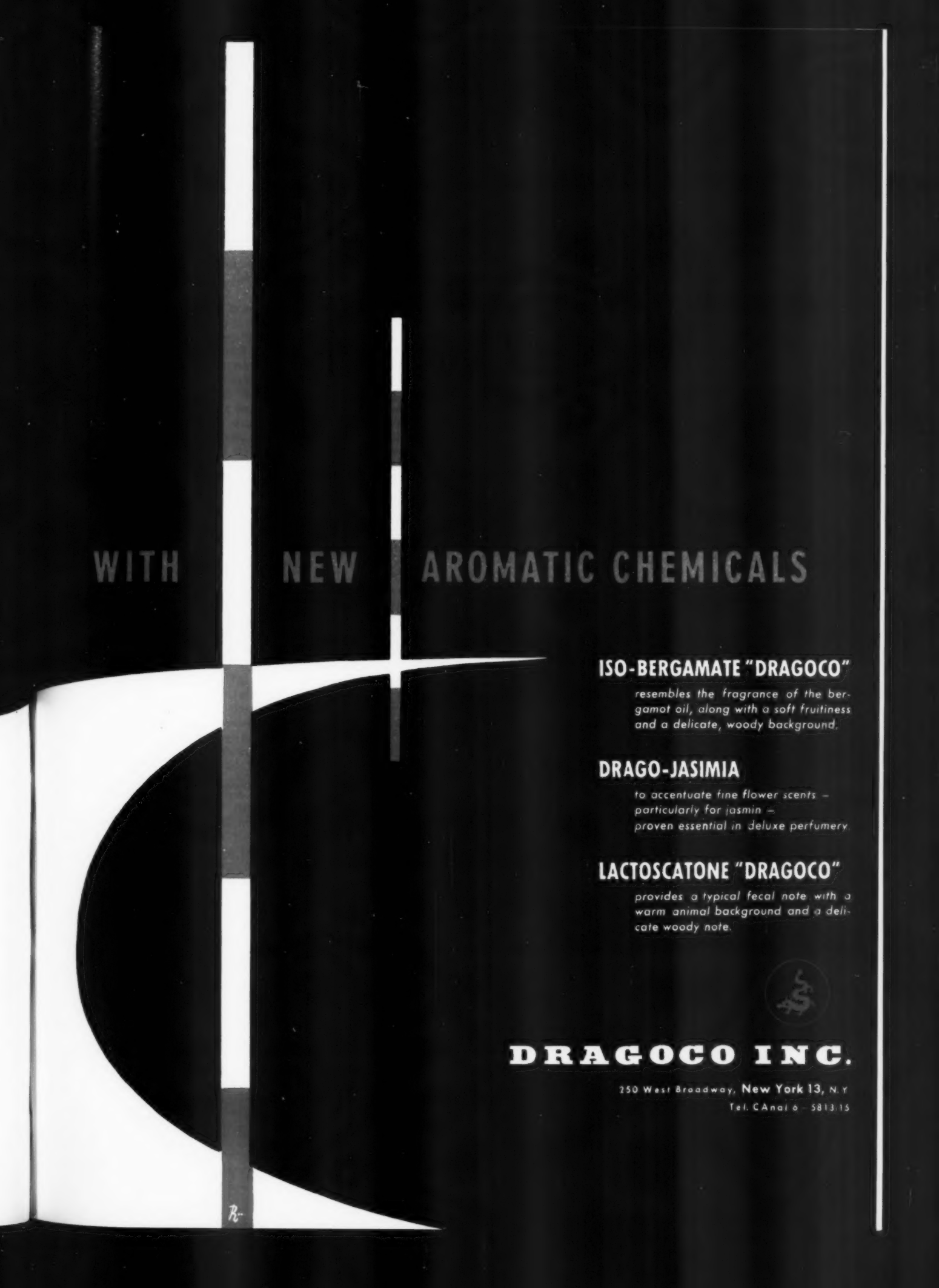
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Flavor Notes

The Drug, Chemical and Allied Trades Section of the New York Board of Trade has opposed legislation covering the flavoring of drug products in New York state as it would create a conflict between federal and state positions.

* * *

Vanitrope developed by Shulton Inc. is now offered pre-blended with vanillin in two optimum strengths for use in chocolates, baked foods, ice cream and extracts. One formulation, having one part by weight Vanitrope and 20 parts by weight vanillin, is about twice as strong as vanillin in flavor strength, yet costs only about 75% as much as the vanillin needed to produce equally intense flavors. The other powder, consisting of one part Vanitrope and 7 parts vanillin, has about 4 times the flavor strength of vanillin, costs only about half as much to produce flavors of equal intensity.

* * *

The Department of Agriculture is exploring the possibilities of establishing a pepper vine in Puerto Rico. The introduction of Asian varieties was difficult because seed grown stock did not produce true to type. So far the vine has established a tenuous grip in the soil of Puerto Rico. Whether a pepper crop can be made to pay in the face of competition by Far Eastern pepper growers is questionable.

* * *

Two new United States distributors of vanillin produced by the Ontario Paper Co. Ltd., Thorold, Ont., Canada, have been announced. They are Zink & Triest Co., Philadelphia and S. B. Penick & Co., New York. Shulton Inc. which has been distributing the Ontario Paper Co.'s vanillin for several years will continue as a major distributor.

* * *

A number of synthetic emulsifiers will not be permitted in ice cream according to tentative standards issued by the Food & Drug Administration. The proposed ice cream standards are based on hearings held in 1952. Included in the ban are monoesters of sorbitan and fatty acids, monoesters of fatty acids and the polyoxethylene sorbitan and monoesters of polyoxyethylene glycol and fatty acids. The mono and diglycerides of fat forming fatty acids, except lauric acid, provide smoothness in ice cream and the Administration regards them as safe. The following stabilizers are allowed for use as optional ingredients: gelatin, sodium alginate, sodium carboxymethyl-cellulose, extract of Irish moss, psyllium seed husk, agar and gums including acacia, karaya, locust bean, tragacanth, oak gum and guar seed gum.

* * *

The appointment of three new salesmen to represent the Richardson Corp., Rochester, N. Y., has been announced by Lloyd Cox, vice president and general sales manager, and Edwin Wetmore, assistant sales manager. They are James Olsen, Minneapolis, Minn., Jack R. Rea, Harrisburg, Ohio, and Frank Krebs, Pennsylvania.

* * *

Monosodium glutamate, often designated as MSG is to be produced on a large scale this Summer in the Cherokee plant of Merck & Co. in Danville, Pa. MSG has been used widely by food processors to enhance the flavor of foods and is also used for the purpose by housewives. The market for it has been increasing in recent years. It will be produced by the technically advanced fermentation process under license from Kyowa Fermentation Industry Ltd. of Japan.

The Colyer Co., 350 Lexington ave., New York, N. Y., reports that it represents the manufacturer of Enocianino, a desugared concentrated grape color, which it claims will stand up even in cans. This year it has a super concentrate, one quart of which, according to the Colyer Co., yields sufficient color to water equalling strength of grape juice in 400 gallons.

* * *

Leeben Color & Chemical Co. Inc., New York, has appointed the following representatives: E. W. Ortenbach for Louisiana; Charles E. Baker Inc. for Georgia; and the Dalex Co. for Montreal and Toronto, Canada.

* * *

Food additive bills have been pending in Congress for the last seven years and it is possible that Congress will consider such a bill at this session. Many queries regarding the status of the food additives bills have been sent to John S. Hall, executive secretary of the Flavoring Extract Manufacturers Assn. As a result the Food Additive Committee of the association has held meetings in formulation of a policy following considerable study. Last February 3 the Food Additive Committee on behalf of the association filed a statement with the Subcommittee on Health and Science of the House Interstate and Foreign Commerce Committee, copies of which were sent to members of the association. At the Chicago meeting May 20 a technical symposium on food additives will be conducted by Dr. Richard L. Hall who will make a report on behalf of the committee. Dr. Bernard L. Oser will discuss "Technical Aspects of Flavors as Food Additives"; Attorney Joseph D. Becker will discuss "Chemicals in Foods, the Legal Complex"; Dr. Howard Spencer will speak on "Testing for Toxicity" and Dr. J. A. Zabb will point out "Problems Proposed by the Food Additive Legislation." A Question and Answer period is also scheduled.

* * *

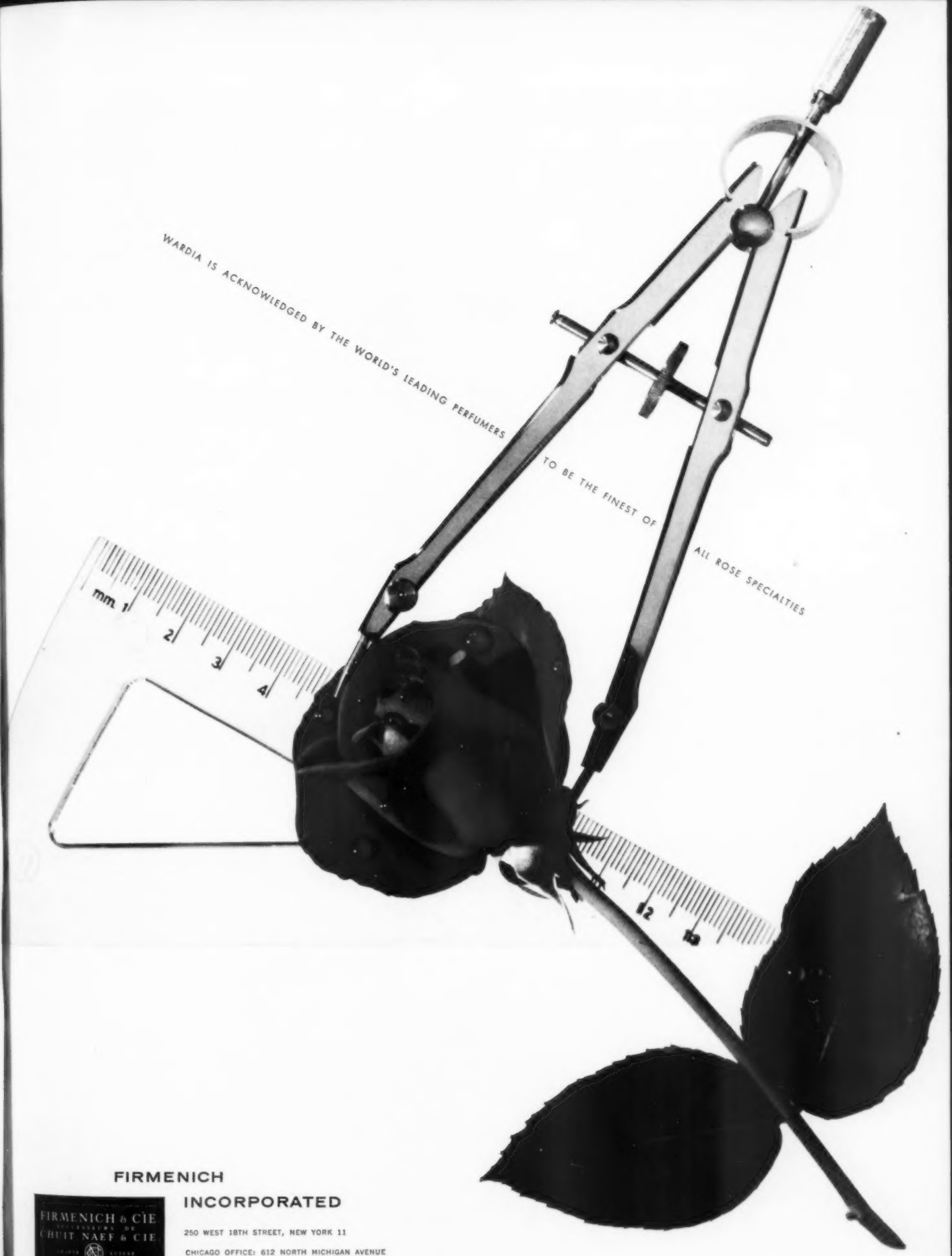
"What makes strawberry strawberry?" Dr. Max J. Winter of Firmenich & Cie, Geneva Switzerland answered this question at the Chicago flavor symposium sponsored by the Flavor Laboratory of Arthur D. Little Inc. In taking strawberry apart chemically Dr. Winter found more than 35 odorous substances that contribute to the strawberry flavor. Hydrogen sulfide is one that is in the delicate flavor of strawberry but in such minute quantities that it cannot be detected except when isolated from the fruit. Other contributing factors are butyric acid and caproic acid both of which have obnoxious odors; yet when all the compounds which are extremely concentrated on isolation are put back together and diluted the result is natural strawberry flavor. Dr. Winter also offered a note for chefs: when strawberries are crushed in an open container the finest flavor is developed in the course of a minute; after as little as five minutes a definite deterioration of flavor is noted and after 10 minutes the alteration is marked.

* * *

Today's food processors have learned much but need to know more about flavors according to a stimulating article in "Progress Thru Research" the informative house organ of the Central Research Laboratories of General Mills Inc., Volume 12 No. 1 recently issued.

* * *

Dr. Bernard L. Oser who has directed the affairs of Food and Drug Research Laboratories Inc., Maspeth 78, N. Y. since 1934 has succeeded Dr. Philip B. Hawk as president. Dr. Hawk established the Laboratories in 1922 after ten years of service as professor and head of the department of Physiological Chemistry and Toxicology at Jefferson Medical College. Although over 83 years age he still plays tennis.



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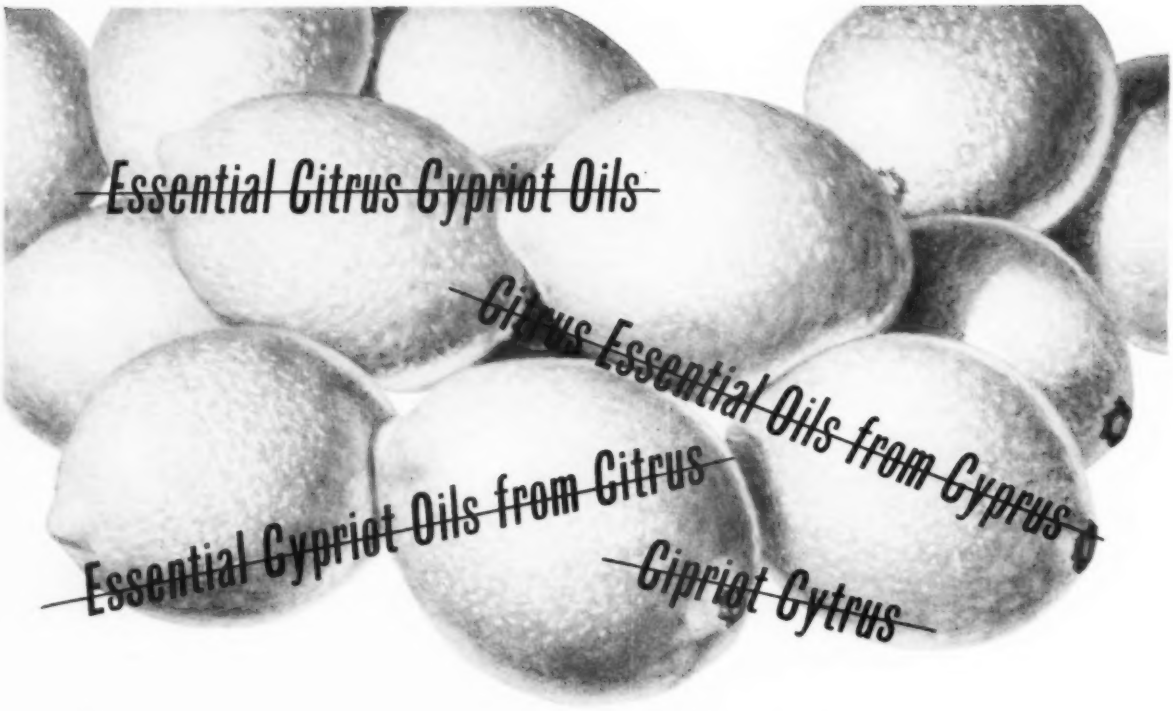

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Chemical Abstracts

Perfume. Badische Anilin- & Soda-Fabrik Akt.-Ges. (Hans J. Riell and Hugo Kroper, inventor). Ger. 927,946, May 20, 1955 (Cl. 23a, 6). Carbinols of the general formula $EtC(R):CHCH_2C(OH)R'Et$, where R and R' are Me or Et groups or the esters of low-mol. acids, are used as perfume. 3,6-Dimethyl-3-octen-6-ol (150 parts) mixed with phenethyl alc. 100, nerol 150, 6-acetoxy-3,6-dimethyl-3-octene 20, anthranilic acid methyl ester 20, petitgrain oil 300, geranyl formate 5, indole 0.03, decanal 0.2, and nonanal 0.1 part is used as artificial neroli oil. A mixt. of 3,6-dimethyl-3-octene-6-ol 15, hydroxycitronellal 15, and Ylang-Ylang 7.5 parts has a lily-of-the-valley odor. A rose-thé compn. is obtained by mixing 3,6-dimethyl-3-octene-6-ol 100, geraniol 600, citronellol 200, phenethyl alc. 100, Bulgarian rose oil 100, phenethyl butyrate 20, and nonanal 1.5 parts. Thru C. A. *52*, 1562b

Perfume. Farbenfabriken Bayer A.-G. (Martin Bollmann and Herbert Hempel, inventors). Ger. 928,193, May 26, 1955 (Cl. 23a, 6). Diisopropylbenzyl carbinol (I) is prepd. by treating $PhCH_2Cl$ 10 in Et_2O or MeOBu 140 with Mg 47 g., activated with Br 2cc., followed by $PhCH_2Cl$ 220 in Et_2O 620, and diisopropyl ketone 228 in Et_2O 115 g. The product is treated with H_2SO_4 and ice. After washing I with water, a colorless oily liquid, b_5 139-40° is distd. off in 220 g. yield. A compn. similar to moss or mushroom odor is obtained by mixing I 20, α-amylcinnamaldehyde 2, salicylic acid amyl ester 2, East-Indian sandalwood oil 10, patchouli oil 16, and isobutylquinoline 2 parts. Thru C. A. *52*, 1562d

A Method for the Measurement of Foam Strength of Toothpastes and Tooth Soaps (powders) and Establishment of a Foam Strength Number. H. Wehle (Univ. & Bezirks-Hyg.-Inst., Leipzig, Ger.). Pharmazie *11*, 135-8 (1957).—A simple method is described based on the measurement of foam vol.: 5 g. of the dentifrice is weighed into a 100 ml. graduated cylinder and water is added to 50 ml. (20°). The cylinder is shaken vigorously for 1 min., then left standing 1 min.; the vol. of foam is read, the small bubbles clinging to the upper walls being disregarded since they introduce relatively little error. To improve the readings, a few drops of Congo red soln. is added to distinguish soln. and colorless foam. Foaming strength = $a\,b/(a+b)$, where a = height of foam over original water line and b = height of foam over the actual water line found after shaking. Foaming strength no. = foaming strength value divided by 3.33. Thru C. A. *52*, 661f

Variations in the Oil Absorbing Property of Pigments in Function of Linseed Oil Acidity. M. R. Carpentier (Ets. Kuhlmann, Paris). Congr. mondial detergence et prods. tensio-actifs, 1er, Paris, 1954, *3*, 1153-5 (Pub. 1956).—A study was made with two types of lithopone and TiO_2 (rutile type) and a no. of oils with acid nos. from 0.8 to 7.2 (obtained from 2 refined linseed oils). The materials and procedures used are outlined and the results obtained are tabulated and discussed. The oil-absorbing capacity increased very rapidly when the acid no. of the oil decreased from 4 to 0; it varied little when the acid no. of the oil was higher than 4, and was proportional to the oil/water interfacial tension, within the margin of the acid nos. indicated. Thru C. A. *52*, 747g

Effect of Antioxidants on the Stability of Orange Oil. W. M. Gearhart, B. N. Stuckey, and E. R. Sherwin (Eastman Chem. Products, Kingsport, Tenn.). Food Technol. *11*, 260-1(1957); cf. U. S. 2,657,997, C. A. *48*, 2286h.—Butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT) were added to D-limonene, the predominant terpene found in orange oil and to orange oil. The storage time in days at 25° was as follows: D-limonene control, 9; plus 0.1% BHA, 14; plus 0.01% BHT, 12; orange oil control, 71; plus 0.02% BHA, 195; plus 0.02% BHT, 179. Thru C. A. *52*, 3193a

Suitability of Antioxidants for the Stabilization of Pharmaceuticals. III. Wool Fat and Wool-Fat Alcohols. Heinz Janecke and Gunter Senft (Univ. Frankfurt/Main, Ger.). Arch. Pharm. *290*, 472-8(1957); cf. C.A. *51*, 14204c.—The addn. of dihydronorguaiaretic acid 0.01%, propyl gallate, butylhydroxyanisole, α- or β-conidendrol, or α-tocopherol to wool fat has a stabilizing and antioxidant effect. The palmitate of ascorbic acid, citric acid, or citraconic acid by themselves did not produce any results, but as synergists in conjunction with the antioxidants they were very effective. Autoxidation in wool fat alcs. is also inhibited by the same antioxidant combinations. Thru C. A. *52*, 3255i

A Study of the Effect of Cosmetic Ingredients, Creams and Lotions on the Rate of Moisture Loss from the Skin. Donald H. Powers and Charles Fox. Proc. Sci. Sect. Toilet Goods Assoc. *28*, 21-6(1957).—A method is described for detg. moisture loss through living skin by means of a small glass desiccator. The effect on rate of moisture loss owing to the application of a no. of different cosmetic raw materials has been detd. The rate of moisture loss can be lowered by use of materials which form occlusive films. Many other ingredients used in cosmetic emulsions have no effect or actually increase the rate of moisture loss. C. A. *52*, 3269f

Chlorophyll-Glutathione Preparations. Dr. Madaus and Co. Ger. 925,062, Mar. 10, 1955 (Cl. 30h, 2_{03}). A dry or wet mixt. of Na chlorophyllin (I) (water-sol. chlorophyll deriv.) and glutathione (II) is used in therapy. A dried prepn. of I and II is mixed with talc as a medical powder. An aq. soln. contg. I and II is used in bandages and in salves for treatment of wounds. A reversible reduction-oxidation system is formed by I and II which is said to reverse the strong neg. potential of coliform bacteria. Thru C. A. *52*, 3276i

Effect of Aromatic Principles on Toilet Soap During Storage. S. A. Moldavskaya and E. S. Dmitrieva (Factory "Svoboda," Moscow). Masloboino-Zhirovaya Prom, *23*, No. 9, 24-7(1957).—Sixteen synthetic aromatic principles and 4 essential oils were tested for their effects at 0.5% level on the quality of toilet soap during storage. Isoeugenol and methyl anthranilate (I) were found to be mainly responsible for the darkening of soap during storage. Soap contg. I developed spots also. Ionone, coumarin, acetylanisole, muscatel sage oil, and coriander oil affected but slightly the quality of soap during storage in either open containers or protected from the light. Thru C. A. *52*, 3370d

Continued on page 60

Packaging and Promotion

1.

2.

1. BURMA VITA CO.

A new after shaving lotion, Burma Spicy Shave Lotion, is being introduced by Burma Vita Co., as the newest item in the firm's line of men's toiletries. Burma after shave skin freshener comes in four-ounce bottles individually gift boxed. The boxes are done in light green and black with a Burmese illustration. Retail price is $1.00.

2. MAX FACTOR

Replacement of a conventional polyethylene bottle by a new lined polyethylene container has given greater shelf life to Max Factor's "3 for the Road" according to a statement by Plax Corp., manufacturer of the plastic bottles. Packed in a plastic travel kit, "3 for the Road" contains bottles of hair groom, deodorant-cologne and after shave lotion. The lined bottles prevent loss of fragrances through the polyethylene.

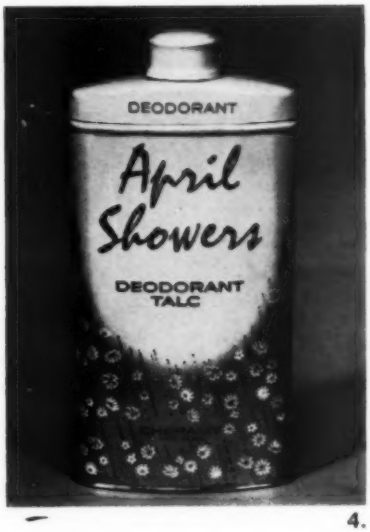
3. TINKERBELL

Tinkerbell Toiletries has introduced Spray Mist Cologne for the young Miss of 7 to 13. It is reported to be safe for young, tender skins and is packaged in a leak-proof non-breakable container. Its multi-colored floral design makes it especially decorative for young dressing tables. Retail price is $1.35 plus tax.

4. CHERAMY

Cheramy announces that it will strongly support its April Showers Deodorant Talc during the summer months. According to the manufacturer, the product is a fine-sifted talc and an effective deodorant containing hexaclorophene. Advertising art features the newly designed April Showers Deodorant Talc container, the decor of which is aqua and white with a shower of red blossoms.

3.



4.

5.

5. LENTHERIC

To meet a new and important demand, Kings Men has created Cool Off, a body refresher for men, that can be used lavishly after a shower. The 8 oz. bottle features an aquamarine label, with black and gold in the shape of a coat of arms. In the upper left corner of the crest, against a black background, is the King's Men knight's helmet.

6.

6. CHARLES OF THE RITZ

A golden bronze tint has been added to Charles of the Ritz Deep Tone Sun-Bronze lotion to give the skin a head start on a tanned appearance this summer. According to the manufacturer, there is no oily residue left on the skin to attract sand. Sun-Bronze comes in a 2 oz. bronze and white polyethylene tube. $2.00 plus tax.

7.

7. TUSSY

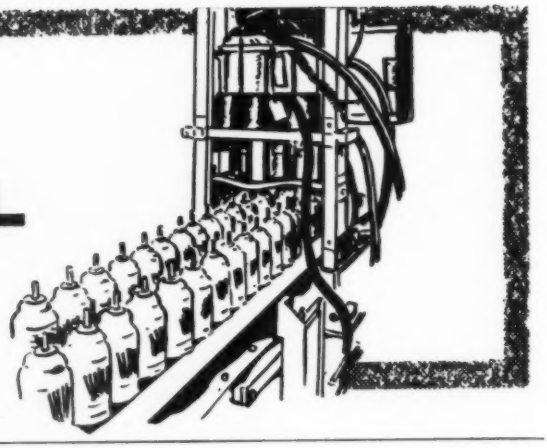
Five fragrances by Tussy Cosmetics are being offered during the company's annual promotion of summer colognes and bath items. Each fragrance series is packaged in a spatter of black and white with color: light yellow for Safari, aqua for Ovation, pink for contraband and green for Muguet Royale. Flamingo comes in a spatter of black and pink with white. The packaging, accented with black and white lettering is designed to look cool and summery, and coordinate colorwise with bathroom decors.

8.

8. NORTHAM WARREN CORP.

Cutex has produced an effective easel display card for their Sheer Lanolin Lipstick in the new designer's, tieing in with the Hot Strawberry spring and summer color promotion. The card is in full color and incorporates the theme of the national advertisements.

Guide to AEROSOL PACKERS



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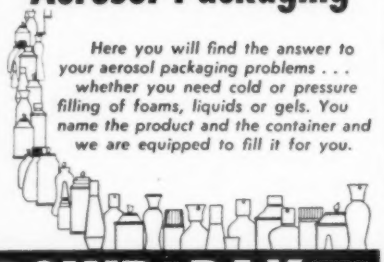

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AERO SCRIPTS

Jack Pickthall*

The Pressure Packaging Discussion Group held another meeting, January 15, the subject being the Manufacture and Filling of Glass Aerosol Bottles. The speakers were M. Chevallier and M. Honoré of Messers. Univer and S.A. Henri Desjonqueres. These people use completely automatic glass making machines, giving a variation in weight of between one and two grammes on a two ounce capacity bottle. They suggest the shape of the bottle should be simple, preferably cylindrical with rounded angles. The larger the bottle, the more simple the shape should be. The neck has a special "nick" to hold the plastic coating, this coating being applied by Desjonqueres. The coating is of a plasticised material which must remain "elastic" and not be stuck onto the glass. The thickness to be used is decided by the propellant loading. For example, they consider 10% propellant at 20 p.s.i.g. to be less dangerous than 20% at 15 p.s.i.g. The coating is added by a dipping process and varies between 0.7 m.m. and 0.9 m.m. in thickness. To use their own words, a foam containing 10% of difluorodichloromethane would not require such a thick coating as a hair lacquer containing 50/50 propellant of a lower pressure.

Spray Coating Not Approved

They do not recommend spray coating of the bottles as these coatings tend to adhere to the glass and if the glass fractures, the glass and plastic swell and finally bursts. They recommend that all bottles should be coated and although they do supply uncoated bottles, they will accept no liability for any damages arising from the use of these bottles. The plastic coating is pin-holed in four places, two at the shoulders and two at the bottom for straight sided bottles and for the waisted type, two at the bottom and two at the point of the smallest diameter. Their original 2-oz. waisted bottles are no longer supplied as a standard line with a plastic coating, owing to inherent difficulty in obtaining satisfactory coating of this particular shape. Any shape of bottle can be supplied coated or uncoated, but they do not accept liability for designs that they themselves think unsatisfactory.

Small bottles can be more complex in design than larger bottles such as 4, 6, or 8-oz. which must be kept simple owing to the greater ease of fracture.

To test the coating from a batch filling of aerosol bottles, they select twelve bottles from each run, raise the temperature to 38°C. and then drop the bottles from a second story window. Under these conditions of test, the plastic coating must be such that no fracture of the glass occurs. Every bottle is hydraulically tested and the general rejection is about one per thousand. They claim that the coating thickness is very uniform about the neck and for the whole bottle they would quote a mean thickness and minimum thickness according to each particular order. The bottles are supplied with the holes already punched in the coating. They produce approximately ten to twelve thousand bottles per eight hour shift. Their continuous production of glass bottles is claimed to be such that no more than one or two grammes variation in weight occurs in a 2-oz. bottle. They use a vinyl plastic and suggest that the holes in the plastic must be big enough not to come together, but small enough not to allow the plastic to split.

For a special shape, which must be accepted by the Desjonqueres Laboratory, an order of 100,000 is required. A range of coloured coatings is available but for a special colour, orders of 20,000 or more bottles of capacity greater than 200 cc's and 25,000 or more bottles of capacity less than 200 cc's are required. The variation in bottle height is said to be 0.3 to 0.4 m.m.

Recording Aerosol Spray Patterns

At the same meeting K. Dixon of Cooper, McDougall and Robertson demonstrated his apparatus for determining aerosol spray patterns. The recording apparatus consists essentially of a glass plate which is coated with magnesium oxide, this being done by burning a given weight of magnesium metal. The glass plate faces the aerosol valve at a predetermined distance and inbetween the

* Chief Chemist, Polak & Schwarz, England, Ltd.

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plate and the valve is a shutter mechanism. The shutter consists of a variable slit (approximately 3 or 4 inches) which passes in front of the glass plate, allowing passage of the spray for a short period. The shutter is raised and in this position the plate is of course covered. The shutter is "tripped" and falls under gravity in slots passing the glass plate. By varying the width of the slit, more or less spray can be allowed to pass onto the plate. When the spray impinges on the magnesium oxide on the glass, the coating is removed according to the size of the droplet. This leaves the plate with an opaque coating of magnesium oxide and transparent spots according to the spray pattern which can then be printed on the photographic emulsion giving a permanent record. The criticisms suggested were, that the velocity of the spray may have just as much effect as the particle size, and that some spreading of the droplet may occur. It was also suggested that silicon dioxide obtained as a dispersion in nitrocellulose, could be used instead of magnesium oxide and this would give a more reproducible film.

Aerosol Packaging Report

A report on Aerosol Packaging from SAFCA (the sixth issue of this interesting document) gives a survey of aerosol sales, marketing, production development and costs. They discuss the general increase in aerosol sales, saying that as far as 1956 was concerned, from 35% to 40% of the total sales went to insecticides with air fresheners running a close second. They say that the sales trends are most apparent even without access to figures, claiming that a visit to chemists, general store or iron monger will reveal the presence in every case of at least half a dozen aerosol packaged products, whereas, one year ago you might have seen only one or two. They make comments on hair lacquers, insecticides, household products and paints.

Reviewing the position of aerosols in 1958, they say that in an age when practically every consumer article steadily costs more and more, it is refreshing to be in an industry where costs are being reduced. They put this down, at any rate in part, to very healthy and welcome competition. In addition, they mention reduced costs of propellants in Great Britain, reduced costs in valves and a drop in the price of filling charges.

As is perhaps known, I have not been too happy about the way my aerosol article has been handled by the American press, and there is one little point I would like to bring to the attention of any friends I may still have in America. The "Aerosol Age," January 1958, published over my signature a letter to the editor. Now, in the first place, I have never sent a letter to them for publication and the particular letter published has once more been edited in a way I dislike. Apart from the editing, one little subtle change in wording has completely changed the meaning of a comment I made. I am not quite sure why editors do these sort of things, but I really wish they wouldn't.

Coloured Foundation Cream in an Aerosol

I wonder whether American readers have seen British Patent 780,885. Date of application and filing complete specification May 3, 1953. Complete specification published August 7, 1957. The patent in question relates to a coloured foundation cream packed in an aerosol dispenser. I was particularly interested, especially in view of a comment I made on a leg make-up cream (in a recent Aeroscript). Examples are:

I Take 15 parts of prepared pigment powder containing preservative and grind with 15 parts of lanolin in a triple roller mill. Add to the resulting paste 3 parts of ceto-stearyl alcohol and 5 parts of a mixture containing equal proportions of lauric, myristic and palmitic acids, and place in a vessel and heat to 70°C. with constant stirring. To this add at 75°C., 55 parts of softened water in which has been dissolved 3 parts of glycerine and 4 parts of triethanolamine. Cool to 30°C. stirring continuously and add a sufficiency of perfume. The resulting cream together with the halogenated hydrocarbon are packed in an aerosol dispenser by standard techniques.

Other suitable formulations may be:

II	Pigmented powder with preservative	15 parts
	Lanolin adsorption base	15 parts
	Coconut fatty acids	6 parts
	Cetyl alcohol	4 parts
	Mineral Oil	3 parts
	Triethanolamine	4 parts
	Water to	100 parts
	Perfume	qs

III	Pigmented powder with preservative	15 parts
	Lanolin adsorption base	15 parts
	Stearic Acid	1 part
	Oleic Acid	1 part
	Myristic Acid	1 part
	Lauric Acid	3 parts
	Stearyl alcohol	3 parts
	Arachis Oil	4 parts
	Triethanolamine	3 parts
	Potassium Hydroxide	1 part
	Water to	100 parts
	Perfume	qs

For use with any of the above creams a suitable colour base can be made as follows:

Titanium Dioxide	50 parts
Kaolin	20 parts
Burnt Sienna	4 parts
Orange Lake	2 parts
Blue Lake	1 part
Yellow Lake	2 parts

The claims are:

1. A cosmetic coloured foundation cream suitable for packing under pressure in an aerosol dispenser and consisting of a pigment or pigmented powder in a cosmetically suitable base capable of being ejected from an aerosol dispenser in the form of a highly aerated cream and comprising an aqueous emulsion incorporating an emulsifying agent and an oil or fat, a preservative, a perfume and a propellant.

2. A cream as claimed in claim 1 prepared as set forth in Example I comprising the materials therein specified.

3. A cream as claimed in claim 1 comprising the ingredients set forth in Example II.

4. A cream as claimed in claim 1 comprising the ingredients set forth in Example III.

5. A cosmetic coloured foundation cream suitable for packing under pressure in an aerosol dispenser and consisting of a pigment or pigmented powder in a cosmetically suitable base capable of being ejected from an aerosol dispenser in the form of a highly aerated cream wherein the pigment, emulsion and the preservative are selected from the substances specified herein for the respective components.

Reading the specification, one gathers the invention turns on the fact (if it is a fact) that it is desirable to reduce the viscosity of the product in order to obtain an even spread of pigmented cream on the skin. This is to be achieved by a large degree of aeration although a suitable gas may replace the air.

What Makes a Better Cream or Lotion?

The texture, the desirable effect on the skin, the permanence, the delicate fragrance, the quality and the fundamental ability of a cosmetic to fulfill the purpose for which it was created are very largely dependent on skilled emulsification.

In the Emulsion Emphasis Section of the forthcoming June issue of American Perfumer and Aromatics all relevant phases of emulsification as it applies to cosmetic manufacturing are covered by experts with years of experience.

Aerosol News

An 8-page brochure describing the types of nitrous oxide installations specifically designed for pressure packaging is available from Ohio Chemical & Surgical Equipment Co., 1400 E. Washington Ave., Madison 10, Wisc. A special bulletin of 8 pages covering nitrous oxide propellants giving chemical, physical and pharma cological properties has also been issued by the company.

Powr-Pak Inc. has just moved into its 110,000 sq. ft. plant at 145 Howard Ave., Bridgeport, Conn. The new facilities include four separate production lines, which the company states will give it a daily production of 350,000 aerosol units.

A non-irritating adhesive bonding agent that is said to dry in three or four minutes without sealing skin pores yet is strong enough to adhere flannel strips to the body for use in skin traction is now available in a self-spraying aerosol. Ace Adherent as it is known is a product of Dickinson & Co., Rutherford, N. J.

Continental Filling Corporation . . . long a leader in quality aerosol filling, insures their customers of quality control by the use of this Gas Chromatography apparatus. The extremely sensitive instrument is used for research, particularly for the volatile constituents of materials received and formulas used. Your product is handled in this manner at Continental Filling to insure you of the finest in custom filling.

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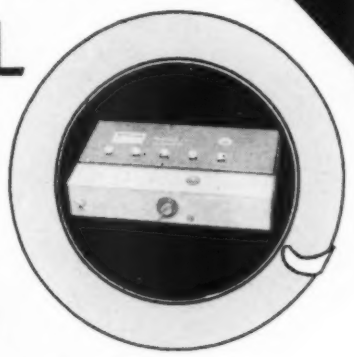

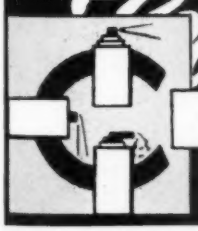

CONTINENTAL FILLING CORPORATION

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New PRODUCTS & IDEAS

INFRARED INSTRUMENT

A simplified low cost infrared instrument, the Double-Beam automatic recording IR-5 Spectrophotometer, was recently introduced by Beckman/Scientific Instruments Division. Fixed controls, push button operation and automatic recording

make the IR-5 easy to operate. The instrument has only five controls, records linearly in transmittance and wavelength and will scan the entire 2-16 micron range in 16 minutes according to the manufacturer. An automatic flat-bed recorder permits use of preprinted, file-size charts and the spectrum is visible at all times. Notations may be made on the chart while the scan is in progress. When the wavelength drive motor is stopped, manual scans can be simply made. Important accessory items include a complete line of standard sample handling equipment for analyzing solids, liquids and gases. There is also an accessory for studying spectral reflectance and a densitometer for accurate quantitative measurements.

ADHESIVE FOR GLASS

A special adhesive known under the trade mark "Glas-Bond" and made by Polymer Industries, Inc., is reported to have a true chemical affinity for silicone-treated surfaces and also adhere to opal, borosilicate, and other difficult glass surfaces. A patent has been issued covering the method of labelling containers with this new type of adhesive.

NONIONIC REAGENT

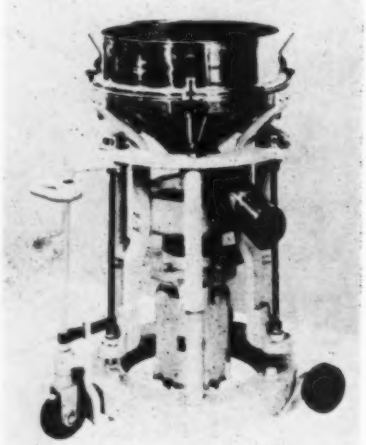
Fisher Scientific Co. has developed a nonionic reagent which, according to the company, expedites the analysis of non-ionic surfactants. Fisher Nonionic Reagent is a ready to use solution for the new method of quantitative analysis for water-soluble nonionic surfactants of known chemical structure.

The method is turbidimetric and calls for visual comparison, but can also be adapted for instrumentation.

The reagent forms a white turbidity with nonionic surfactants in very dilute solutions. Turbidity formation is essentially complete in 15 minutes. A data sheet on the reagent and its use is available without charge.

SIEVING MACHINE

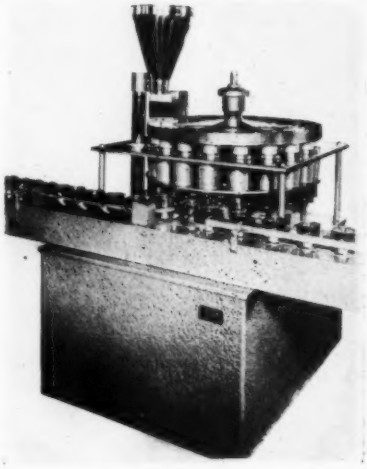
Russell Constructions Ltd. of London presents the Russell stand model sieving machine, which functions on the principle of gyratory vibration. The unit is reported to be silent in operation, with a minimum of wearing parts. It is compact and completely self contained,



and mounted on three trolley wheels for ease of movement. The gyration generator which is powered by a totally enclosed electric motor of ¾ H.P. is contained in an airtight cast iron housing and all external bearings, levers and cams have been eliminated.

ROTARY FILLER

The latest Whiz-Packer high speed rotary filler by Frazier & Son, features high speed, accuracy and dust control. Fully automatic, it requires no operator in attendance. Change-over from one container size to another takes only a few minutes according to the firm. All



contact parts are supplied in either stainless steel or aluminum to fulfill all requirements of the pure food laws. The machine illustrated is powered with a ½ H.P. motor. Bearings throughout the machine are sealed. A special trip device provides for "no container—no fill."

BARREL RACK

The Pressed Steel Division of the Republic Steel Corp. has developed a steel rack designed to permit the handling and stacking of loaded or empty barrels and drums with standard fork lift trucks. The new drum rack supports two loaded barrels and makes easy the stacking of pairs of containers to any practical height. Great flexibility of handling and storage is provided because individual drums or pairs of drums can readily be removed without excessive handling of the other drums in the stack. The units also make it easy to get at bunged drums for draw-off.

Courtesy the artist

THE LOVERS

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by Robert Rosenwald

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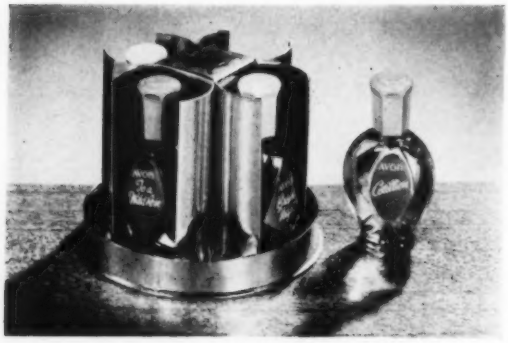
1958 "Boxarama" Set-up Paper Box Competition

Cosmetic and Soap Box Awards

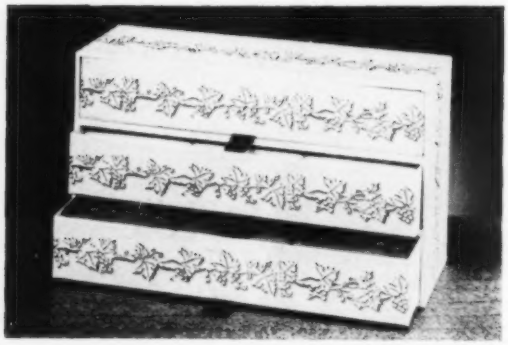
PRINCE MATCHABELLI "COLLECTOR'S ITEMS" BOX—First Award in Rectangular Cosmetic Boxes, by The Warner Brothers Co. for Prince Matchabelli, Inc. Containing a purse-size vial of perfume with matching bottle of cologne, this box features a specially die-cut Currier and Ives reproduction glued to the inside of the hinged lid. When the box is opened, the figures in the skating scene "pop-up," adding a third dimension to the picture. The cosmetics are securely held in a die-cut platform by elastic loops.



AVON "GEMS IN CRYSTAL" BOX—First Award in Round and Oval Cosmetic Boxes, by F. N. Burt Co., Inc. for Avon Products, Inc. Brilliantly highlighting the transparency of four bottles of perfume, this multi-color foil-covered package consists of an oval tray plus four partial cylinders. A slotted foil insert secures the cylinders as a unit, but is purposely not glued so that the purchaser may use the component parts as gifts, prizes, favors, etc.

The Eighth Annual Set-Up Paper Box Competition, sponsored by the National Paper Box Manufacturers Association, drew the equivalent of over 2,000 entries. Seventy-nine awards were made from this array, with all entries placed on display at the Sheraton-Cadillac Hotel in Detroit during the Association's Annual Meeting and "Boxarama" exhibit, May 14-18. As part of the featured program at this meeting, award certificates for the twenty-five first, twenty-six second, and twenty-eight honorable mention boxes were presented to the winning box manufacturers along with duplicate certificates for customers. Also, in recognition of their contribution to the success of the package award certificates for the first time this year being presented to the designers of the winning boxes.

Selections were made by a panel of eight judges experienced in the fields of packaging, merchandising and design. The criteria applied in selecting the award winning boxes in twenty-four separate product categories were merchandising appeal, complement of product and box, brand identification, and convenience of use by the consumer. Awards for excellence of design, construction, and display were respectively made on the basis of art design, ingenuity of construction, and merchandising display value.



PALL MALL SOAP CHEST—First Award in Soap Boxes, Honorable Mention in Construction, by The Piqua Paper Box Co. for the Hewitt Soap Co., Inc. A three drawer chest containing nine cakes of soap, this box was designed both to appeal to gift shoppers and have re-use value to the ultimate consumer. The box is covered with ivory paper, tastefully decorated with an embossed gold design. Ribbon drawer pulls simplify opening and closing of this well constructed soap chest.

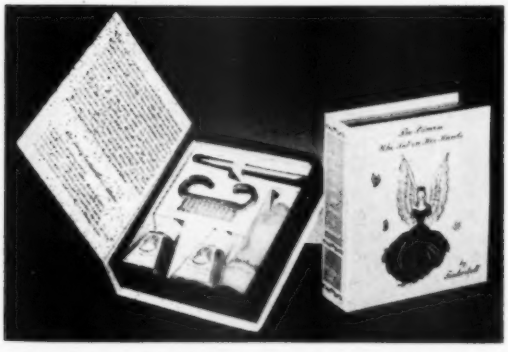
COSMETIC TREASURE CHEST—Second Award in Superiority of Construction, by The Chaspec Mfg. Co., Inc. for Max Factor. A beautiful example of boxmaking craftsmanship, this simulated treasure chest is covered in light blue and fitted with brass hardware. The complete set of cosmetics is contained in a satin covered platform made of vacuum formed plastic. An attractive yet functional gold foil insert in the lid secures the merchandise in the platform when the box is closed.

"PARFUMS de PARIS" BOX—Second Award in Rectangular Cosmetic Boxes, by Samuel Barnett Co. and Chaspec Mfg. Co. for Lucien Lelong and General Beauty Products. This box serves as an eye-catching counter display as well as an attractive combination gift package. Featuring a larger bottle of perfume at the top of the pedestal, there are also three smaller bottles of different fragrances displayed around the base. Each of these bottles rests in a separate box, held in place by vacuum-formed transparent film. The lid contains a die-cut insert which secures the contents for handling.

TINKERBELL PRINCESS BOX—Honorable Mention in Rectangular Cosmetic Boxes, made by Niagara Box Co. for Tom Fields, Ltd. A book-style box containing children's cosmetics, this box actually does have a short story printed on the inside of the lid to further interest the youngster in the cosmetics. Contents, three bottles plus manicuring implements are secured in a die-cut platform and protected by a thick cellulose pad. A printed sleeve slips over the box for shipment.

Better-made low cost, mass produced boxes were noted by the judges, who also observed that an ever-increasing part of the total package cost was being spent on appearance. The requirements of self-service merchandising as well as impulse and gift buying were also apparent in the myriad of products packaged in the competing functional and attractive set-up boxes. Growth of packaging "related items" was noted not only in traditional cosmetic and apparel items, but increasingly used for housewares, photographic products, and promotional items.

DE VILBISS PERFUMIZER—Second Award in Personal Accessory Boxes, by Dennison Mfg. Co. for De Vilbiss. Contrasting shades of patterned blue foil paper are used to cover this unusual book-style box. Open, it affords angular display of the contents, made possible by scoring the lid and bending it backward. The interior tray is lined with satin to provide a beautiful background for the fashionably crafted perfumizer.



TWEEDIE BATH POWDER BOX—Second Award in Round and Oval Cosmetic Boxes, by F. N. Burt Co. for Lentheric Inc. This round, pink and blue dusting powder box features a top label designed to attract the little miss in a very competitive children's cosmetic market.

SIMONETTA INCANTO COSMETIC BOX—Honorable Mention in Round and Oval Cosmetic Boxes, by F. N. Burt Co. for Simonetta, Inc. An oval box containing a purse dispenser of perfume and an aerosol bottle of cologne is given an imported flair by the authentic reproduction of Rome's Colosseum on the lid. The contents are set in a red velvet platform in the base, and further held in position by a die-cut insert in the lid.

Book Reviews

COSMETICS, SCIENCE AND TECHNOLOGY, Edward Sagarin, Executive Editor. Interscience Publishers, Inc., New York 1, N. Y. 1957. 1433 pages, illustrated and indexed. Price $25.00.

The editorial board of this encyclopedic cosmetic book consists of H. D. Goulden, E. G. Klarmann, D. H. Powers and E. Sagarin, men eminently qualified to do the job they set out to do.

A review of a book like this is not really a one man job, but this writer is going to hazard it.

There are actually five parts to this book. (One would have preferred it divided into at least two volumes.) The parts are: I. Scope of Cosmetics (80 pages); II. Toilet Preparations (812 pages containing approximately 800 formulas); III. Manufacture and Technology (214 pages); IV. Physiological Considerations (158 pages); V. Legal Considerations (92 pages).

The sixty-five experts who contributed the material are a who's who of cosmetic chemists in the United States (and one from Canada).

The second portion of the book containing over 800 pages has many formulas for the diverse toilet articles being made today. Some chapters contain proportionately more formulas than others. It is felt that not all have been made by the respective contributors. Some indeed have been taken (with credit) from suppliers' literature. By the same token, some authors are aware of a greater literature on their subject than others, though this is expected to vary between topics. Thus, Chapter 4 on creams and lotions has four references in 17 pages, while Chapter 5 on emollient creams and lotions has 73 references in 44 pages; Chapter 15 has 240 references in 55 pages and so on.

In regard to hypo-allergenic cosmetics, this reviewer contends that most cosmetics made today are hypo-allergenic—not just a few brands. Furthermore, there is some interesting early work by Weber published on two different occasions and also by Schwartz and Tulipan which has not been mentioned in this chapter. Finally, allergenicity and purity of materials are not necessarily related. While author Kramer offers two lists of materials omitted from hypo-allergenic cosmetics, no list of materials considered hypo-allergenic by the author are given. This reviewer fails to see the chapter's purpose.

Chapter 39 overlaps with several others and in this reviewer's opinion usually comes off second best. The work shows a lack of understanding of production problems in smaller plants.

Chapter 40 on quality control is a study of statistical methods of analysis. This is fine for companies large enough to maintain staffs for this purpose. But they are greatly outnumbered by the smaller organizations. Furthermore, this is but one aspect of quality control.

The chapter on hair grooming preparations needs checking of a number of the formulas obviously incompatible at first sight. The chapters are not introduced uniformly and materials are often described incompletely (beeswax, mineral oil or lanolin, etc.).

Cosmetic patents, a growing concern to cosmetic chemists are handled well by some authors but about half of them have either no coverage or only slight offerings.

On formulas, some chapters seem unnecessarily loaded; this is especially true in the case of baby products and shampoos. If the author knows his formulations, a few recipes serve well. A number of chapters used this form of presentation.

An excellent history of cosmetics, a good background chapter on hair dyes, an up to date contribution on hair straighteners, a thorough study of suntanning preparations and sunscreens, an abundant coverage of both the U. S. and Canadian Food and Drug Act, enlightened chapters on hair waving, depilatories and dentifrices and an index of trade named materials mentioned in the text are some of the highlights of this formidable volume.

There are so many useful things in this book that the few drawbacks are like drops of water in the ocean.

Highly recommended for your library.—*M.G.deN.*

BERTRAGLICHKEIT VON KOSMETISCHEN PRAPARATEN, by E. Sidi. Dr. Alfred Huthig Verlag, Heidelberg, Germany. 1957. Illustrated, 100 pages, size 6 x 9 inches. Price DM 12.00 (Approx. $3.00)

Drs. G. Hager and H. Friederich have translated Dr. Sidi's French volume "Tolerance et Intolerance aux Produits Cosmetiques" which has previously been reviewed in the AMERICAN PERFUMER AND AROMATICS.

The book is a fair discussion of the effect of cosmetics on the human skin. Much of the data is based on the author's own experience. The references are sketchy. Some of the newer work is not mentioned.—*M.G.deN.*

ANALYTICAL USES OF ETHYLENEDIAMINETETRAACETIC ACID, by F. J. Welcher. D. Van Nostrand Co., Inc., 1958. Illustrated and indexed, 366 pages. Price $8.50.

Anyone connected with analytical chemistry is acquainted with the classical work on reagents written by the present author.

In somewhat the same way, author Welcher has collected a vast literature on the use of EDTA and its salts, sometimes also known as complexones, and narrowed it down to 950 papers which are all very pertinent.

The book opens with three chapters of basic data, then the determination of water hardness, followed by test methods for a host of anions and cations.

This book is not intended to be a critical evaluation or a book of methods suggested by the author. It is merely a digest of published material, all considered useful by the author.—*M.G.deN.*

GIDDY MOMENT, by Ernestine Gilbreth Carey. Little, Brown & Co., Boston, Mass. 1958. 234 pages. Price $3.75.

Mrs. Carey has written an extremely light, reportedly funny fantasy concerning a lipstick that drives men wild and makes the wearer irresistible. Exciting? Then perhaps you're bored enough to read this book.—*W.M.B.*

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Chemical Abstracts

continued from page 47

Dental Preparations. Virgil J. Richter (to Colgate-Palmolive Co.). U. S. 2,806,814, Sept. 17, 1957. Improved dental compns. are obtained by combining a higher aliphatic acyl amide of an amino carboxylic acid such as Na N-lauroyl-sarcosine (I) with an organopolysiloxane such as dimethyl polysiloxane (II) or methyl phenyl polysiloxane. A dental cream, for example, composed of I 2, II 1, $CaCO_3$ 5, di-Ca phosphate-di-H_2O 45, glycerol 30, and water 14% was effective in inhibiting acid production in the mouth. Other examples include tooth powder, mouthwash, liquid dentifrice, and chewing gum. Thru C. A. *52*, 1557c

The Gonadotropic Activity of Date Palm Pollen Grains. F. A. Soliman and Lucy Soliman (Cairo Univ., Giza, Egypt). Experientia *13*, 411-12(1957) (in English).—Tests with immature rats indicate that pollen grains of *Phoenix dactylifera* have a certain amt. of gonadotropic activity, primarily follicle stimulating but with some luteinizing activity. Thru C. A. *52*, 3130g

Bromate-Perhydrate Fixing Composition. Everett G. McDonough (to Procter & Gamble Co.). U. S. 2,809,150, Oct. 8, 1957. The use of a neutralizing agent in setting hair aids in the rapid oxidation of reduced keratin, in removal of any residual mercaptan odors, and minimizes relaxation of the imparted hair wave. After sufficient rinsing of the hair with H_2O, a fixative soln. is prepd. by adding to 1 l. of H_2O (heated to 100-120°F.), 17 g. of a mech. mixt. composed of 10 parts of K bromate, 2 parts of Na perborate-H_2O, and 5 parts of Na tripolyphosphate. Application of this soln. for a period of several min. results in setting the waves in the hair. Waves so set are said to remain *in situ* for 1 month. Thru C. A. *52*, 1561g

The Bactericidal Activity of Royal Jelly on Tubercle Bacilli. Attempt to Fractionate the Active Principle. H. Langlade, H. Hinglais, and M. Hinglais. Ann. inst. Pasteur *93*, 272-6(1957) (English summary); cf. C.A. *50*, 14129f.—The fraction of royal jelly which is bactericidal to the tubercle bacterium is sol. in H_2O and 95% EtOH. The alc.-sol. fraction is 15% of the original jelly. Thru C. A. *52*, 3008d

Determination of Remnants of Substances Used in the Treatment of Living Hair. Unilever N. V. (Hans Schlichenmaier and Josef Strohbach, inventors). Dutch 82,892, Oct. 15, 1956. In order to det. if the hair, after permanent waving, etc., and thoroughly rinsing, still contains noxious remnants of chemicals, such as thioglycolic acid, curls of the hair, in moistened condition, are pressed between pieces of paper, impregnated with a reagent, e.g. on org. S compds. Only after a neg. reaction on the paper, rinsing can be stopped. Thru C. A. *52*, 1562a

Frequent Shaving and Hair Growth

To The Editor:—A nurse mentioned that she was never allowed to shave the neck of a woman ready for thyroidectomy for fear that hair would grow. Is this tradition a throwback to forklore? Are there any statistics that show whether or not shaving does affect hair growth? *Robert R. Reilly, Landover Hills, Md.*

Answer.—There is no truth in the belief that frequent shaving will stimulate the growth of hair. If this were true, the average young man would have been shaving his head closely for years in an attempt to retain his falling locks. This fact has been substantiated by several experimental studies. One of these investigators (Trotter, Arch. Dermat. & Syph. 7:93, 1923) performed numerous experiments in which she tested the effects of shaving the hair of various parts of the body in adults of both sexes. Careful measurements of the hair were made at the beginning of the study and at the end of the experiment. A comparison was made of symmetrical areas on the body, one area being shaved daily while the other was left untouched and used as a control. This type of protocol was employed over a period of several months, and the results showed that there were no differences whatsoever in the amount, length, diameter, or pigmentation of either the lanugo or terminal hairs present on either side. *A. M. A. J., March 29, 1958, p. 1663*

Packaging for Supermarkets

The Supermarket Institute which represents 800 companies operating 8,000 supermarkets which combined do an annual business of 450 million dollars in non-food business recently held a two day conference on non-foods. Summarizing the discussions John R. Hertz, director of the General Management Division of the Institute offered some interesting comments of value to cosmetic companies which sell in whole or in part through supermarkets.

According to Mr. Hertz the items must be volume items; have a high repeat factor; should be at the moderate price levels; bear fair margins; represent small units of sale; must be convenient to carry out, yet large enough to minimize pilferage. They must be packaged to sell themselves; easy to display; should be convenient to handle operationally without damaging; have a minimum of style element—such as colors, size, etc.; be available for quick re-ordering; be particularly appealing to women buyers and bought on impulse. Finally, they should include items which can be moved quickly, in large quantities, to provide the factor of tonnage which leads to profits.

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PERSONALITIES

Lee Bristol, Jr., public relations director for Bristol-Myers Products Division, has added the authorship of a book

Lee Bristol, Jr.

to his list of accomplishments. The book, "Seed For A Song," published by Little, Brown & Co., is the life story of Bishop Robert Nelson Spencer, retired Bishop of the Episcopal Diocese of West Missouri.

W. L. Vega has been appointed vice president in charge of sales and advertising for the American Plastics Corporation, a subsidiary of Heyden Newport Chemical Corp.

Dr. Kurt S. Konigsbacher spoke on "The Importance of Flavor to the Gourmet" at a dinner for The Gourmet Society. Dr. Konigsbacher is prominent in the scientific flavor work carried on by the Evans Research and Development Corp.

Dr. Hedwig Toome has been appointed to the laboratory staff of Old Empire,

Dr. Hedwig Toome

Inc., Newark, New Jersey as assistant research chemist in Aerosols. Dr. Toome received her doctors degree at the University of Vienna, Austria.

Gerald A. O'Reilly has been promoted to sales manager of Prince Matchabelli, Inc. Mr. O'Reilly joined the company in

Gerald A. O'Reilly

1949 as a salesman. He became field sales manager in 1954 and last year was made assistant sales manager.

Mr. and Mrs. Roy V. Titus are the parents of a daughter, their first, born April 7. Mr. Titus, Chairman of the Board of Helena Rubinstein Inc., is the son of Madame Helena Rubinstein. The daughter will be named Helena Ruth.

Elbert E. Husted has been appointed sales manager for fluorocarbon propellants, of the Union Carbide Chemicals

Elbert E. Husted

Co., division of Union Carbide Corp. A new unit of the company, designed to turn out 50 million pounds of fluorocarbons per year at capacity, is slated to go on stream in the fall.

George Shartle has been appointed to the post of merchandising manager of the New York City operations of Buy Book. Buy Book operations consist of a retail druggists' buying guide distributed by 36 non-competitive wholesale drug firms throughout the country.

Gen. James M. Gavin has been elected vice president and a director of Arthur D. Little, Inc. Gen. Gavin will assume

James M. Gavin

his duties as an administrative officer of the company June 1 at Acorn Park, in West Cambridge, Mass. Prior to his retirement at Fort Bragg, N.C. March 31, Gen. Gavin was Army Chief of Research and Development.

William W. Tobin has been appointed technical sales representative for the metropolitan New York and Connecticut areas by Geigy Industrial Chemicals, Ardsley, N.Y. Mr. Tobin joined Geigy in 1955. Following two years in the technical sales organization, Mr. Tobin was appointed New England sales representative. In his new capacity, he will continue to represent Geigy Industrial Chemicals in New England.

Dr. H. W. Lawrence has been elected president of the Industrial Medical Assn. Dr. Lawrence is medical director of the Procter & Gamble Co., a position he has

Dr. H. W. Lawrence

held since 1947. He is also Associate Professor of Industrial Medicine in the Institute of Industrial Health, University of Cincinnati.

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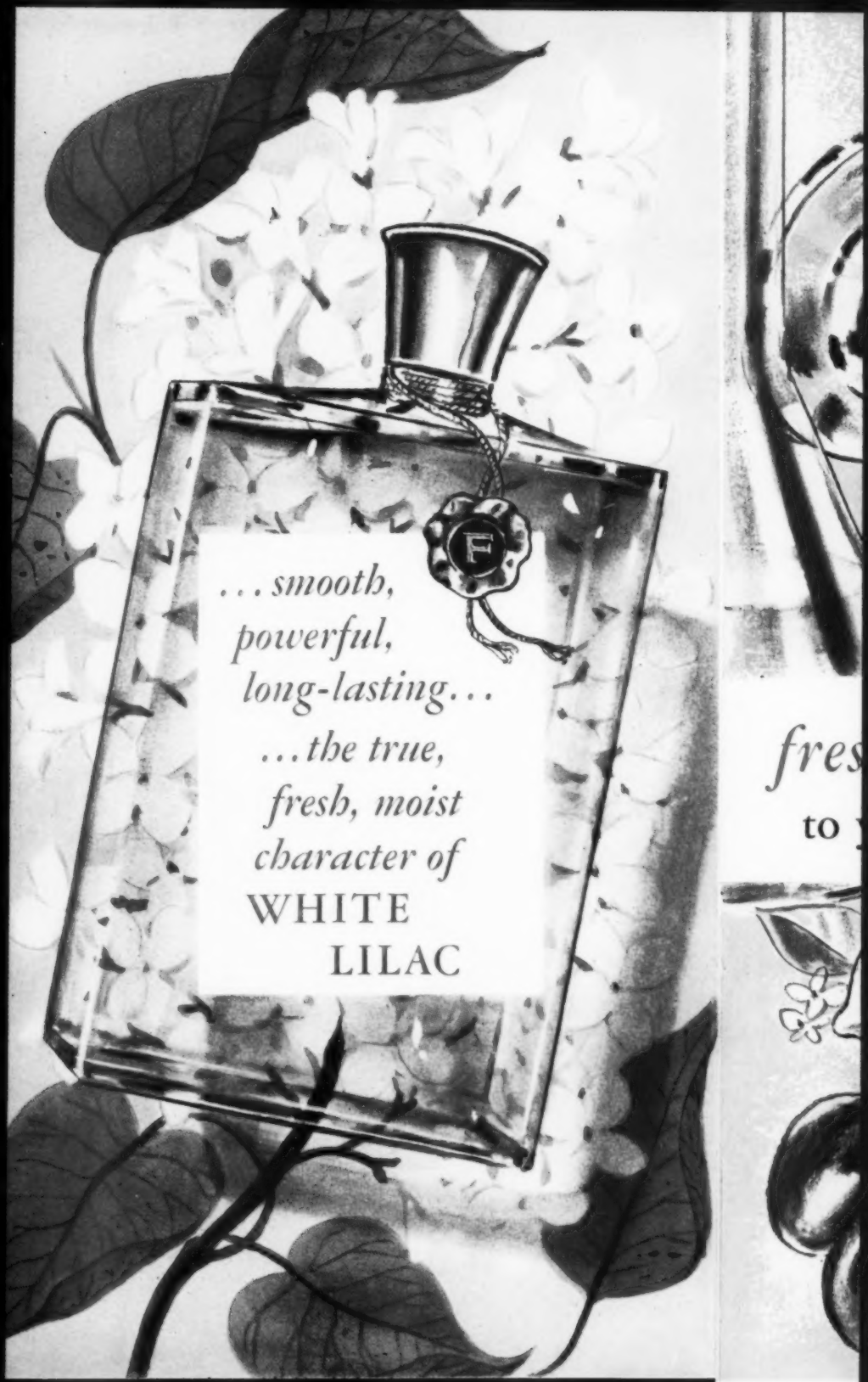

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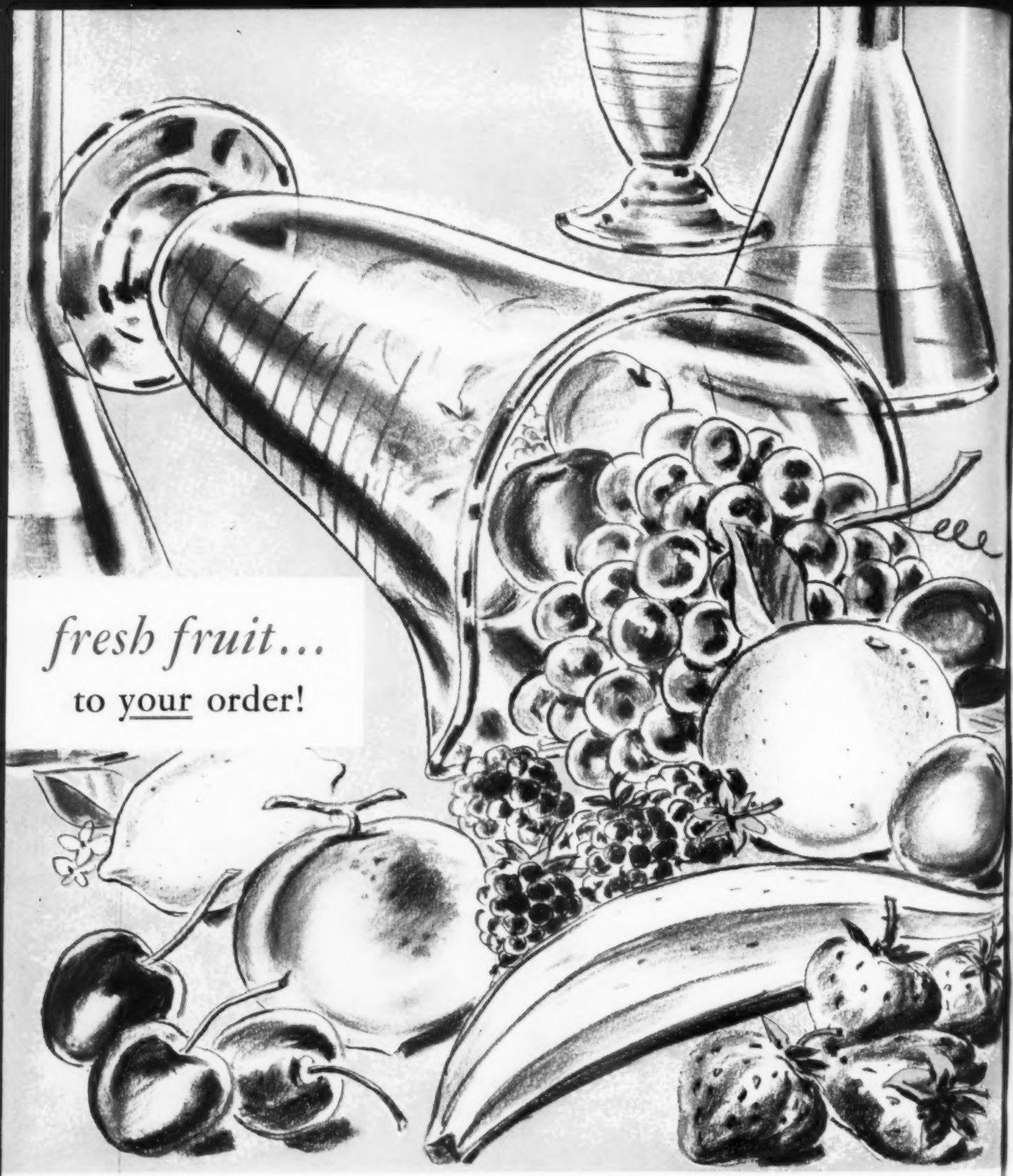

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News and Events

President of Parfums D'Orsay Honored by Brandeis University

The election of Jack I. Poses, president of Parfums D'Orsay, New York and Paris and a vice president of the Toilet Goods Assn., to the board of trustees of Brandeis University has been announced by Abraham Feinberg, chairman of the board.

Mr. Poses has been active in association work for many years and his host of friends will be delighted to learn of the well deserved honor that has come to him.

Maurice A. Meunier Awarded Two Medals for French War Service

Capt. Maurice A. Meunier, perfumer for Dana Perfumes Inc. was decorated with the medal of Chevalier of the Legion of Honor and the Croix de Guerre with cluster at the French Consulate in New York by Gen. Jean de Bary of the French Army, April 10. The decree for both honors was dated Dec. 20, 1945. An audience of military leaders and members of the perfume industry witnessed the ceremonies. Capt. Meunier first served in the American Army and was discharged in 1940 when he enlisted in the Free French army. After being torpedoed at sea he became a liaison officer to the 12th group of the U. S. Army. He landed at Omaha Beach with the 7th U. S. Armored division and made numerous missions to the combat zone. The citation commending him as a high calibre officer was signed by Gen. deGaulle and by the War Minister for the provisional government of the French republic.

Coty Makes Hit by Distributing Lilies on May Day

The popular, if sentimental, custom of giving out sprigs of fresh lily of the valley to passersby on May 1 (May Day), proved to create a lot of good will for the company. A group of celebrities in front of the Coty Salon in Rockefeller Center with baskets holding thousands of individual buttonhole bouquets pinned good luck bouquets on passersby. Among the notables who did this were Lilly Dache, Maggie McNellis, Genevieve, Maurice Chevalier and Lila Holliday, the Coty girl. At the same time a group of girls wearing muguet des bois hats and fashions designed by Lilly Dache distributed sprigs of lily of the valley in front of the Bonwit Teller department store.

S. B. Penick Jr. Program Chairman

S. B. Penick, Jr., president of S. B. Penick & Co., New York, N. Y., is program chairman for the 86th annual meeting of the Manufacturing Chemists Assn. to be held in White Sulphur Springs, W. Va. June 12-14.

Program for T.G.A. Scientific Section Meeting June 5

The Toilet Good Association, Inc. announces the program for the meeting of the Scientific Section to be held on Thursday, June 5 in the Sert Room, Waldorf-Astoria Hotel, New York City, with luncheon in the Grand Ballroom.

Just prior to adjournment for luncheon, a vice-chairman will be elected. The 1958 CIBS Award will be presented at the Luncheon.

Papers will be presented in the following order:

Shelf and Accelerated Testing of Perfume Compounds in Finished Cosmetic Preparations by Victor Di Giacomo and Walter Wynne, Givaudan-Delawanna, Inc.

A Study of the Penetration of Aluminum Salts into Excised Human Skin by Irvin H. Blank, Edith Gould and John L. Jones, Jr. The first two authors are affiliated with the Department of Dermatology, Harvard Medical School and Massachusetts General Hospital. The remaining author is affiliated with the Reheis Co., Inc.

Establishing the Safety of Fluoride Dentifrices by S. L. Cooper, The Procter & Gamble Co.

Principles for Evaluation of the Safety of Cosmetics from the Standpoint of Inhalation by Henry J. Horn, M.D., Hazleton Laboratories.

Lanolin Derivatives as Solubilizers by Lester I. Conrad, Kalmen Motiuk and Henry Maso, Research Laboratories, American Cholesterol Products, Inc.

Antiseptics versus Antibiotics for the Control of Skin Bacteria by Dr. Samuel M. Peck and Dr. Irwin Kantor.

New Approaches to the Study of Human Horny Layer by Peter Flesch, Department of Dermatology, University Hospital, University of Pennsylvania.

Pressure Packaging with Nitrogen by Morris J. Root, Technical Director, G. Barr & Co.

MAURICE A. MEUNIER HONORED BY FRANCE

Gen. Jean de Bary is shown pinning the two medals on Capt. Maurice A. Meunier

AEROSOL RESEARCH LABORATORY

Columbia University College of Pharmacy's new Aerosol Research Laboratory is ready to begin its pressurized pharmaceutical development program. Seen in photo are Dr. Joseph L. Kanig, left, in charge of laboratory, and graduate student Harvey Mintzer. The new laboratory was built with a grant from Aerosol Techniques, Inc.

Cosmetic Chemists Take A Lesson in Make-Up

In subject matter the proceedings of the Sixth Scientific Meeting of the Society of Cosmetic Chemists of Great Britain were unique in the history of the Society. In the lecture Hall of the Royal Society of Arts, Miss Eve Gardiner, chief make-up artist of Max Factor, was introduced by the president, Jack Pickthall, F.R.I.C., to demonstrate "The Practical Use of Cosmetics."

That members appreciated the departure from precedent is evidenced by the record attendance. That their anticipations were fulfilled is evidenced by the record duration of the meeting and the record number of lively questions put to the lecturer.

Miss Gardiner carried out a complete facial make-up, for which Mrs. Riley was kind enough to act as model, undergoing an ordeal of some magnitude while Miss Gardiner explained the objective of each step of the process, discussing how it could be achieved and detailed the requirements of the cosmetics to be used in achieving it. Each step was carried out with a view to harmonizing all effects produced in the complete makeup.

The seventh Scientific Meeting of the Session took place at the Royal Society of Arts, April 25, with Dr. Jean L. Martin as guest speaker. He spoke on "The Developing of the Market for Men's Toiletries in the U.S.A."

The annual general meeting was held May 16. Dr. R. H. Marriott has undertaken arrangements for the annual Golf Tournament to be held at Hadley Wood Golf Course on May 21.

COLLINS CIBS GUEST SPEAKER

Shown chatting after the CIBS luncheon meeting, April 10, (l to r) Allen T. Stewart, Edward L. Collins, guest speaker, William L. Jaeger and Lamson Scovill. Mr. Collins, former president of SAACI, gave an interesting and humorous talk on "Nothing so Refreshing as a Winter Dip!"

Columbia College of Pharmacy Opens Aerosol Laboratory

An aerosol laboratory to be devoted primarily to pressurized pharmaceutical development projects has been opened by the Columbia University College of Pharmacy. Dr. Leonard A. Scheele, former U. S. Surgeon General and now president of Warner-Chilcott Laboratories spoke at the presentation of the new laboratory April 30. The laboratory was built with the aid of a grant from Aerosol Techniques Inc., Bridgeport, Conn. of which H. R. Shepherd is president. Prof. Joseph L. Kanig will be the director of the laboratory. The research programs will seek to establish methods of quality control and evaluative procedures for pressurized formulations.

Indian Perfumer Makes its Bow as a Useful New Publication

The Indian Perfumer, a useful publication of the Essential Oil Assn. of India, Nawabganj, Kanpur, India, has issued its first number.

It is a well compiled number with a list of the members of the Executive Council of the association, a list of members of the association, proceedings of the February 13 meeting of the association, and informative papers on technical subjects.

Among these are "Chemical Examination of Spearmint Oil," "Chemical Examination of Petitgrain Oil from Lime (Citrus Aurantifolia)," "Steam Distillation for Essential Oil," "Petitgrain Oil of Citrus Microcarpa or Hazara," "Self Sufficiency in Perfumery Raw Materials," "Introduction of Some of the Important Aromatic Plants in Jammu and Kashmir," "Chemical Examination of the Oil of Zanthoxylum Acanthopodium," "Vetiver Oil from Cultivated Vetiver Plants in South India," and "Summary of the Work Done on Essential Oils at Various Universities and Laboratories in India."

Indian Standard Specifications for nine essential oils are given in a separate section. Book reviews and abstracts from technical journals add to the completeness of this interesting and valuable publication which bids fair to contribute much to the technical literature of the essential oil industry.

Procter & Gamble Net Profit for Nine Months $56,343,773

The Procter & Gamble Co. reports consolidated net profit of $56,343,773 for the nine months ended March 31. In the current period provision has been made for United States and foreign income taxes of $53,529,000.

Hearings on Food Additive Bills Concluded April 16

The subcommittee of Health and Science of the House Interstate and Foreign Commerce Committee headed by Representative J. B. Williams concluded public hearings on food additive bills April 16.

Horace G. Titus, Helena Rubinstein's Son, Dead

Horace Titus with his mother, Mme. Helena Rubinstein in the terrace of her Paris apartment.

Horace G. Titus, son of Helena Rubinstein, died at St. Clare's Hospital in New York of a heart attack on Friday, April 18.

Mr. Titus was born in London in 1912. His father was Edward J. Titus, whom Madame Rubinstein married in 1908.

Educated at Yale and Oxford Universities, Mr. Titus devoted his time to painting for a few years following his formal education and subsequently entered his mother's firm as Color Consultant and Advertising Manager.

Always interested in writing and painting, his contributions to the Helena Rubinstein business were mainly in the creative areas of advertising and general visual presentation. He won many awards in the field of design and color, and was the author of many articles.

Surviving in addition to Mr. Titus' mother are a son, Barry, a daughter, Tobey, and a brother, Roy.

New Dechema Pamphlet Published

"Weighing, Laboratory Techniques" is the theme of one of the series of the "Dechema-Erfahrungsaustausch" pamphlets which has just been published.

Agreement Reached Between Helene Curtis, Trade Commission

Agreement has been reached between Helene Curtis Industries, Inc., and the Federal Trade Commission staff, to a consent decree relative to Enden Dandruff Treatment Shampoo. Willard Gidwitz, president of Helene Curtis, stated that the company always felt that its advertising indicated that Enden was to be used regularly as a shampoo to be effective, and the consent decree provides that Enden Dandruff Shampoo will not be represented as permanently curing dandruff. The Federal Trade Commission complaint related to television advertising. The company took the position that viewers were adequately informed relative to the required regular use of Enden for effective control of dandruff.

GCMI Semi-Annual Meeting Scheduled for May 20-23

The annual membership meeting of the Glass Container Manufacturers Institute, Inc. will be held at The Greenbrier, White Sulphur Springs, West Virginia, from May 20 thru May 23.

General sessions will be held on Wednesday, Thursday, and Friday mornings. Speakers include Jacob Baker of The Econometric Institute, Inc.; W. E. Hoadley, Jr., of the Armstrong Cork Co.; Edmund F. Ball, GCMI president; industry representatives and members of the GCMI staff.

J. C. Feagley of Armstrong Cork Co., is chairman of the program committee which includes C. G. Bensinger of Owens-Illinois Glass Co. and J. S. Heuisler of Maryland Glass Co.

Women in Control of Selection of Brands

73.3% of all purchases of drug and toiletry products (excluding prescriptions) rung up in drug stores and supermarkets are made by women, it is revealed in the newly published "McCall's Drugs & Toiletries Purchase Diary Study," the report of a nationwide survey of the American family's buying pattern and of the influence exerted by various members of the family in the fields of drugs and toiletries.

Charles S. Welch Awards Luncheon May 22

The Charles S. Welch Memorial Essay Awards, usually presented during the annual convention, will take place at a luncheon to be held on May 22 at the Starlight Roof of the Waldorf-Astoria hotel in New York. The market research for the essays has been done this year by New York University's Graduate School of Business Administration. The subject for the 1958 awards was "Men's Toiletries—Their Use and Motivation of Purchase by Both Men and Women."

Procter & Gamble's New Plastic Bottle

Procter & Gamble introduced an improved design plastic dispenser with comb-tip for "Lilt" and has recently further extend its "squeeze bottle magic" concept to a new, no-lotion home

permanent, "Pace." The new Lilt applicator is a 2-ounce custom oval bottle with specially-designed comb tip to assure even penetration of both waving lotion and neutralizer. The Pace 2-ounce tapered round bottle is designed to be used with P & G's new home permanent. Since the lotion is contained in the end papers, the bottle is equipped with a simple dispensing tip intended for the application of water and neutralizer. Both bottles are pink and have removable dispensers.

Vi-Jon Laboratories, Inc. Wins Gold Toiletry Bottle

In recognition of a half century of growth as a manufacturer of drug, toiletry and cosmetic products, a gold toiletry bottle was recently presented to Vi-Jon Laboratories, Inc., St. Louis, Mo., by Owens-Illinois Glass Co. to commemorate this historic event. Shown here accepting the award from J. H. Horner of Owens-Illinois is Carl J. Mueller (center), vice-president and general manager. At the left is John W. Brunner, president of Vi-Jon and son of the company's founder. The company has factories in St. Louis and in Oakland, Calif., with warehouses in New York and in Chicago.

Salesmen's Assn. Sponsors Two Courses

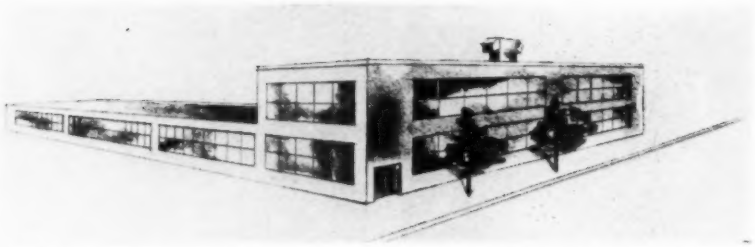
The Salesmen's Association of the American Chemical Industry will sponsor this year two courses in "Sales Power," following the success of similar sponsored courses in 1957, according to LeRoy P. London of E. I. duPont de Nemours & Co., chairman of the SAACI Educational Committee.

The first course started April 28 and the second on May 1. There will be six meetings to each course. Aim of the course, according to Mr. London, is to develop improved speaking habits. The meetings, for each course, are from 6 p.m. to 8 p.m. and are held in the Chemists' Club, 25 East 41st St., New York. Cost of the course is $80.

Elizabeth Arden At Brussels Exhibition

Elizabeth Arden has been invited by the U.S. Department of State to participate in representing the American way of life at the Brussels Universal & International Exhibition, 1958. A complete salon in miniature, representative of the beauty and luxury that characterize the Elizabeth Arden salons around the globe, has been installed. Here trained personnel will supervise the appearance of the eighty young American women who will serve to interpret the United States exhibit to the twenty million visitors expected to enter the American pavilion.

FELTON TO EXPAND



The Felton Chemical Company, Brooklyn, will soon break ground for a new building to furnish additional manufacturing space and expanded laboratory facilities. The present urgent need for more space has forced Felton to advance the starting date of construction a year ahead of schedule. The handsome new building, contemporary in design, will face on Randolph Street and run back tieing into present facilities on Johnson Avenue.

Big Future Predicted For Aerosol Fragrances

Sales of aerosol-packaged colognes and perfume should total more than 40,000,000 units in 1959. Aerosol colognes should reach sales volume of $100,000,000. This is the prediction of Donald S. Tuttle, Jr., sales manager of the Valve Division, the Risdon Manufacturing Co.

In 1956, colognes alone, in conventional and aerosol packaging, accounted for nearly two-thirds of the fragrance industry's sales volume—$58,340,000 of a total cologne and perfume volume of $91,200,000.

Sales of hair sprays and lacquers were practically non-existent, except to professional beauty operators until they were packaged in aerosols, according to Mr. Tuttle. Then sales skyrocketed to 79,000,000 aerosol units in 1956, making hair sprays the aerosol industry's top seller by far.

New developments in valves and containers can do much to popularize aerosol-packaged fragrances. For instance, new types of valves release a spray that is finer and more effective than that dispensed by the best of conventional atomizers. Now metering valves emit a measured spray, regardless of how long the actuator may be pressed. The containers, made of plastics, glass and metal, are more attractive and show more variety than ever before.

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Advances in Perfume Chemistry Told by Dr. Ernst T. Theimer

Dr. Ernst T. Theimer, director of Research, van Ameringen-Haebler, Inc., recently gave a talk on the "Chemistry of Perfume Raw Materials" at a meeting of the Raritan Valley Subsection of the American Chemical Society held at Rutgers University.

"Over the past half century," Dr. Theimer stated, "the variety of organic chemicals used in the manufacture of perfume compounds has become greater with the discovery of new reactions and with the availability of new raw materials. Products originally isolated from essential oils have been replaced in many cases by similar or identical materials prepared synthetically. In addition, new chemicals not found in nature are being used to a greater extent in modern perfume creations."

F.A.S. Wood Visits the United States

F. A. S. Wood, managing director of Croda, Ltd., Snaith Goole, York, England left by airplane April 27 for his annual visit to the United States. During his stay in the United States most of his time was occupied in discussions with executives of the American subsidiary, Croda, Inc. Mr. Wood established the American company in 1950 and remained in this country until 1953. He then returned to England and was elected managing director of the parent company.

COSMETIC CHEMISTS AIR PROFESSION

The first of a series of programs to educate the public on the profession of the cosmetic chemist, as reported in the March issue took place February 18. Those who took part are shown in the photograph: Gabriel Barnett, President James Baker, Herbert Sheldon, who opened the panel discussion, Sabbat Strianse and Miss Ruth Bien.

Fruit & Syrup Mfrs. Assn. Honors Robert T. Benjamin for Service

Robert T. Benjamin, Leeben Chemical Co. Inc. was presented with a bronze plaque by the Fruit & Syrup manufacturers Assn. at its 41st annual meeting April 18 and 19, for his untiring efforts and selfless devotion to the fruit and syrup industry.

Papers were presented by Dr. Donald V. Josephson of Pennsylvania State University; Howard B. Grant, I. Vincent Gage and Dr. Bernard L. Oser who discussed food additive legislation. Excellent round table discussions followed.

Officers elected are: President, William S. Conway; Vice Presidents, Robert T. Benjamin, Alphonse Levy and Dr. Irwin F. Plagge; Treasurer, Julius Abrahams; Secretary, George M. Low; and members of the Board of Governors: Howard B. Grant, Dean J. Limpert, Joseph B. Margolis, Arthur H. Melnikoff, L. George Rosskam, Sidwell B. Thomas, Francis H. Tolan, Morton D. Wool and Louis J. Woolf. Robert M. Rubenstein was reelected executive director and counsel.

Bill in Congress to Exempt Cosmetic Excise Tax for Year

A bill has been introduced in Congress providing that retailers excise taxes on durable goods, including cosmetics shall not apply for a year.

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THREE KOHNSTAMM CHEMISTS PROMOTED

The promotion of three H. Kohnstamm & Co., Inc., chemists to executive posts has been announced by Paul Kohnstamm, president. Dr. Samuel Zuckerman, plant superintendent in Brooklyn, has been named a vice president. Dr. David Jorysch, technical director of the flavor department, and Dr. Robert Cooney, a research supervisor, have been appointed assistant vice presidents. Each of the chemists has served with the firm over 20 years.

Borden Co. Appoints E. C. Elliott Manager of Marcelle Cosmetics

E. C. Elliott has been appointed manager of the Borden Co.'s Pharmaceutical Division's newly acquired Marcelle Cosmetics Inc. Mr. Elliott joined the Borden Co. in 1943 and prior to his appointment was production manager of the Special Products Division's plant in Elgin, Ill. Marcelle Cosmetics Inc. which manufactures a line of hypoallergenic cosmetics was purchased in April.

Chemical Specialty Manufacturers to Meet in Cincinnati May 19-21

The 44th mid year meeting of the Chemical Specialty Manufacturers Assn. will be held in the Netherland Hilton Hotel, Cincinnati, Ohio, May 19-20. Among the special speakers will be Robin Robertson Jr. former deputy secretary of Defense; D. W. Michener economist for the Chase Manhattan Bank and Louis Ware president of International Minerals and Chemicals Corp.

T.G.A. Golf Tournaments at Poland Springs

The Ladies Golf Tournament of the Toilet Goods Assn. will take place June 26 and the Men's All Industry Golf Tournament will be held June 27 at Poland Springs, Maine. The trophies to be played for are the Cecil Smith, the B. M. Douglas, the B. E. Levy and the Maple Leaf. The first three will be played for on a handicap basis by representatives of active and associate members. The Maple Leaf trophy donoted by the Toilet Goods Manufacturers Assn. of Canada will be played for on a century basis—gross score or over qualifies. There will be many other prizes also. On the evening of June 27 there will be a special golf dinner when prizes will be awarded. Tickets for the tournaments will be sold at the Poland Spring House. The committee which arranged the affair and will conduct the tournaments is composed of Paul E. Forsman, chairman; Michael Lemmermeyer, Donald Bush, Alden Ludlow, Albert Burgund, Lee Simmons and Elinor Dedrich, who will be chairman of the Ladies tournament.

Glidden Chemical Division in New Chicago Quarters

The Southern Chemical Division of The Glidden Co. is now located in its new Chicago quarters at 141 W. Jackson Boulevard. The Telephone number is HArrison 7-1253.

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Oil Chemists to Hold Dinner Meeting

The Northeast Section, American Oil Chemist's Society, will hold the final dinner meeting of their 1957-1958 season at Whytes' Restaurant, Fulton St., New York City at 6:30 p.m., June 3. The speaker will be Arnold G. Wilbur, Product and Development Department, Celanese Corp., who will discuss the subject, "Fat-Derived Plasticizers." Anyone interested in this subject and in the general field of oils, fats and plasticizers, is welcome to attend. For additional information contact the society's secretary, Henry G. Salomon, 216 Pearl St., New York 38, N. Y.

United Jewish Appeal Raises Almost a Million Dollars

Contributing close to a million dollars to the 1958 rescue and relief campaign of the United Jewish Appeal, members of the cosmetic, drug and allied industries paid tribute to Jack Osterweil of the United Whelan Corp. for his role in humanitarian affairs, April 24. The occasion was the annual dinner of the Drug, Perfume, Cosmetic and Allied Industries division of UJA at the Hotel Pierre, New York, N. Y. Over 300 trade leaders attended the dinner.

Son of Oscar Beiser Married April 25 in New Jersey

Charles E. Beiser, son of Oscar Beiser of Givaudan-Delawanna Inc. and Mrs. Beiser was married April 25 to Miss Cynthia Beattie, daughter of Mr. and Mrs. Guy Beattie of Mountain Lakes, N. J. in the Community Church Chapel there. The bride is with American Airlines and her father with the Solvay Sales Division of Allied Chemical. The bridegroom served on active duty as a lieutenant with the U. S. Navy after he was graduated from Rensselaer Polytechnic Institute. He is associated with the M. W. Kellogg Co. in New York.

Golden Peacock Fish Fry Queen

Lovely black-eyed, raven-haired Norma Pierce was recently crowned Hostess Princess of the World's Biggest Fish Fry and Fishing Rodeo at Paris, Tenn.

Miss Pierce, an 18-year-old high school senior, was sponsored by Golden Peacock, Inc. It was the second time in the four-year history of the Fish Fry that an entrant from the cosmetic company took the top honor in the beauty review.

Miss Pierce, whose ambition is to be an airline hostess, contended for the honor in a record field of 41 contestants. She has been asked to compete in the Miss Tennessee contest.

The Fish Fry was started four years ago by Mitchum E. Warren, president of Golden Peacock, who was president of the Paris Chamber of Commerce at that time.

DIOR DISPLAY

Among the guests at the cocktail party given on April 9 at the Waldorf by the Committee for the "April in Paris" Ball were a number of the New York beauty editors. Shown here with Anne Wright of Christian Dior Perfumes Corp. (next to the display on the left) are Willa Frederick, Town and Country, and on the opposite side, Kathleen Spencer Cory of Harper's Bazaar and Harriet Segman of Macfadden Publications. This Dior perfume display, draped in pink satin, was a center of attraction at the party, and favors for the guests were vials of Diorissimo perfume.

GOLDEN PEACOCK FISH FRY QUEEN

Miss Pierce is crowned Hostess Princess of the World's Biggest Fish Fry by Paris Mayor

Ciro Plans Doux Jasmin Summer Promotion

Parfums Ciro has selected "Summer Romance" as a merchandising theme in which "Doux Jasmin" plays the stellar role. The summer romance theme will be rounded out with a planned program of integrated selling aids. The packaging of this Ciro Floral is modern; a combination of cream, gold, white and strong yellow. The Esscent bottle is in two sizes.

Antoine Plans New York Headquarters

Headquarters of Antoine beauty salons have been planned in New York by Michael Saphier Associates, in Fifth Avenue's Tishman building.

Kasco Laboratories Inc. Founded in Hempstead, N. Y.

Kasco Laboratories Inc., a new corporation located at 442 Peninsula Blvd., Hempstead, N. Y. has begun the production of ointments, creams, lotions and liquid pharmaceutical preparations on a custom basis. Stanley Shaffer is president and Kurt Kohorn is secretary-Treasurer.

New Formulations Containing Lanolin Specialties

In the highly practical Emulsion Emphasis Section of American Perfumer and Aromatics in the June issue will be found some excellent formulations for various cosmetics containing lanolin specialties. This is just one of the features which add to the value of the well rounded treatment of emulsions in the next issue.

Retirement of Charles Wesley Dunn

Charles Wesley Dunn, general counsel for the American Pharmaceutical Manufacturers Assn. and probably the foremost authority on the Food, Drug & Cosmetic Law particularly as it relates to drugs and cosmetics, is retiring. He is succeeded by Dr. Karl Bambach, executive vice president of the American Drug Manufacturers Assn.

Program for S. C. C. Semi-Annual Technical Meeting

The program for the semi-annual technical meeting of the Society of Cosmetic Chemists June 4 in the Hotel Commodore, New York, follows:

"Percutaneous Absorption of Vitamin A," Dr. Albert E. Sobel, Jewish Hospital.

"Effect of Metabolite Analogs on the Formation of Tissue Components," Dr. H. George Mandel, Geo. Washington University.

"The Present Role of Detergents in Toilet Bar Manufacture," John McCutcheon.

"The Use of Infra Red Spectroscopy in Studying the Composition of Essential Oils," Dr. C. L. Teitelbaum, Battelle Memorial Institute.

"Skin Problems of The Older Woman," Dr. Alice E. Palmer.

"The Role of Ultraviolet Absorbers in Cosmetics," Dr. F. E. Woodward, Antara Chemicals Division.

"Nitrogen as Propellent in Pressure Packaging," H. R. Shepherd.

Givaudan-Delawanna, Inc. Appoints Western Sales Agent

R. E. Horsey, vice president in charge of sales, has just announced the appointment of Durkin Chemicals, Inc., as sales agents in Washington and Oregon for Givaudan-Delawanna, Inc., Givaudan Flavors Inc., and Sindar Corporation. The new agent of the Givaudan organization will be located at 2603 Second Avenue, Seattle 1, Washington.

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Louis E. Genoud managing director of Comptoir de la Parfumerie, Geneva, Switzerland, is making a trip across the United States and to South America. After visiting friends in the trade in New York he left for Chicago, Los Angeles and San Francisco and then his trip will take him to Mexico, Venezuela, Sao Paulo, and Rio de Janeiro, Brazil. His company is sole distributor in Switzerland for Lanvin Parfums, Dorothy Gray

Louis E. Genoud

and Roux Inc. **J. B. Cendros,** president of Haugron Cientifical, S.A. Barcelona, Spain, is accompanying Mr. Genoud on his trip to the United States and to the Latin American countries. His company

J. B. Cendros

is well known abroad as the manufacturer of Floid, after shave lotion, which he plans to distribute in the United States and in Latin America.

Stephen Manheimer, son of Edward Manheimer of J. Manheimer, essential oil dealer, New York, and Mrs. Manheimer, was recently awarded a prize for his exhibits at the New York City Science Fair. Young Mr. Manheimer is a junior in the Far Rockaway High School. The young scientist presented a demonstration of the molecular structure of and methods for isolating linalool. The model made of corks and wire hangers reproduced the structure of the large molecule. Prof. F. C. Collins of Brooklyn Polytechnic Institute was so impressed by the exhibit that he sent Mr. Manheimer a textbook on the chemistry of organic compounds by the noted scientist Conant, formerly president of Harvard University, and Blatt.

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How Bristol-Myers Co. is Helping to Meet the Recession

An unusual step has been taken by the Bristol-Myers Co. to meet the recession. In an attempt to encourage direct buying customers to carry larger inventories the company offers 90 day terms to enable direct buying customers to take a 2% cash discount at 30, 60 and 90 days intervals on one-third of their invoice at the end of each period. The plan will also improve the company's warehouse operation costs by encouraging a customer who buys two or three times a month to place an order for larger quantities.

In commenting on the plan the skilfully editor N.W.D.A. Executive Newsletter says: "Dating practices are not devoid of hazards because they not infrequently encourage the customer to buy more than is necessary for his requirements. It is rare indeed that a buyer can accurately predict his requirements for a period of 2 or 3 months in advance, and when he does not move the merchandise, his service wholesaler usually catches the ball in the form of past-due accounts. At the end of 1956, NWDA wholesalers carried an average of 35.11 days in accounts receivable on their books, with 20.92% on a past-due basis . . . moreover, the average NWDA member has an investment of approximately $425,000 in customers' accounts, with a total for all members exceeding $110 million. For these reasons, it is unlikely that service wholesalers will enthuse over any program which will unfavorably affect the ability of their retail customers to pay and discount their bills promptly. It is obvious that service wholesalers will not be in a position to extend to their retail customers the generous terms of the B-M offer."

Shulton to Spend a Million in Seven Days for Father's Day

Shulton Inc. is to spend one million dollars in the seven days before Father's Day to promote Old Spice Toiletries for Men. The campaign is believed to be the most intensive program of saturation TV, radio and print ever directed at Father's Day gift shoppers in the cosmetic industry. Two new men's toiletry sets of Old Spice in plastic containers give new diversion to the line in anticipation of vacation travel requirements.

Charabot & Cie Launches Attractive Semi-Annual House Organ

The first issue of Nouvelles de Grasse, a semi annual house organ of Charabot & Cie, Grasse, France, has been issued. It is skilfully edited, illustrated with photographs and sketches and is printed in French and English. In it Paul Langlais pays deserved tribute to the late Eugene Charabot who gave vitality to the company which was founded in 1817. A history of Grasse and other features add to its value.

Malmstrom Research Grant to Wisconsin College of Pharmacy

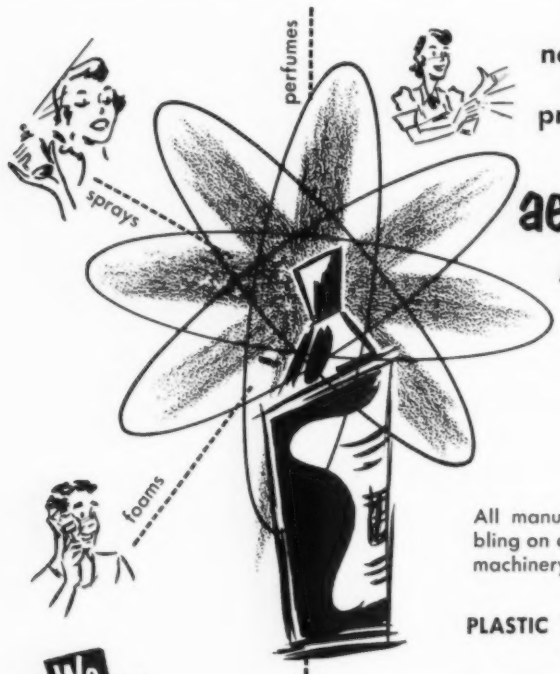
The Malmstrom Chemical Corp., Newark, N.J., has announced a research grant to the School of Pharmacy, University of Wisconsin, for a study of "the possible interaction between lanolin derivatives and the skin." The research program, under the direct supervision of Professor Dale E. Wurster, will cover a one year period.

According to E. Allen Newcomb, Malmstrom president, areas of investigation may include, among others, determination of the chemical components (if any) of the skin lipids, and other lipid materials, that are absorbed by the keratin of human skin, determination of the rate and depth of penetration of these lipid materials into the keratin layer and the influence of these materials on the mechano-elastic properties of keratin.

Special Award of S. C. C. to Dr. William Montagna

Dr. William Montagna, professor of biology, Arnold Biological Laboratory, Brown University will receive the special award of the Society of Cosmetic Chemists at the luncheon June 4.

Dr. Montagna's investigation of the fundamentals of skin, together with its publication, is a monumental landmark in this phase of cosmetic science. The presentation will be made at the luncheon June 4.



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SPOTLIGHT News...

An ultrasonic dishwasher for the home which is claimed to clean dishes, pots and pans in less than normal time is likely to be available commercially within a year according to Acoustics Associates. The tentative price suggested is $500.

Purex Corp. has acquired the Allen B. Wrisley Co., Chicago through a stock exchange of one Purex share for six Wrisley shares. Purex Corp. Ltd., South Gate, Calif. purchased the Manhattan Soap Co. makers of Sweetheart soap and prior to that acquired Old Dutch Cleanser. Wrisley is to be operated as a division of Purex Corp.

The first hair tonic in an aerosol has been launched by Wildroot Co., Buffalo, N.Y. It is a 6 oz. can retailing at 98 cents.

A new 49 Dura-Gloss nail hardener has been put on the market by Ar Winarick Inc., New Brunswick, N.J. a subsidiary of Lorr Laboratories.

For the first time Lanvin Parfums has moved out of the fragrance field. It has acquired distribution rights in the United States for the French Antoine line of cosmetics from A. S. R. Products. The Antoine products include a sun screen, ski cream and hair set.

A combination auto wash and wax which is claimed to wash and wax a car in one operation will be launched in June by Seeman Bros. Inc. It is a liquid concentrate which retails at 65 cents per bottle. A heavy advertising campaign is planned to promote the new product.

Park & Tilford has been merged into Schenley Industries Inc.

Seven most prominent problems of small business concerns according to the Small Business Administration are: Taxes, labor relations, shrinking profits, competition of imports and of big business, management inadequacies and competition from tax exempt co-operatives.

A six months work schedule calendar to help management forecast work overloads and vacation periods has been prepared by Manpower Inc., 820 N. Plankinton Ave., Milwaukee 3, Wisc. It is arranged so that an executive can chart periods in which extra help will be needed and arrange for it in advance.

The claims of Lanole Products Inc. that its hair preparations will prevent baldness have resulted in a complaint of misrepresentation by the Federal Trade Commission. Bad scalp hygiene and scalp infection are not the principal causes of excessive hair fall and baldness the complaint charges. The great majority of cases are due to male pattern baldness and for this type the complaint states Lanole's preparations are of no value.

Whales which supply oil for the soap and washing powder and cosmetic industry, contrary to general opinion are still caught by America's only active whaling fleet. In 1957 it brought in 237 whales from the vicinity of the Farallon Islands about 30 miles west of San Francisco's golden gate. The whales yielded 3,277,350 pounds of oil.

Chesebrough-Ponds Inc. is closing its McKees Rocks cosmetic manufacturing plant after 35 years of operation. It employed 106 persons in the Stowe, Pa. plant all of whom it is trying to help secure employment.

The largest cosmetic advertisement ever to appear in any publication is the 16 page four color special advertising section of the May issue of Redbook Magazine previewing Chesebrough-Pond's Inc. new Beauty Book premium, a free guide to skin care and make-up.

Elizabeth Arden's famous horse Jewel's Reward with America's foremost jockey in the saddle won the $59,500 Wood Memorial race at Jamaica April 19 and qualified for his trip to the Kentucky Derby, where it finished fourth.

A new medicated skin-care kit has been introduced by Dorothy Gray. It contains a cake of medicated scrub soap, a 6 oz. refining lotion and a one ounce sample of the new Velveteen night cream. The set is $2.50 and the preparations are also available individually.

A million dollars will be spent in seven days preceding Father's Day by Shulton Inc. to promote Old Spice toiletries for men to Father's Day gift shoppers.

An aerosol laboratory has been established by Columbia University's College of Pharmacy as a result of a grant by Aerosol Techniques. Prof. Joseph Kanig will direct the graduate program for research projects.

National Mother-in-Law Day chairman, Spring Byington, has been presented a special flacon of Angelique Black Satin perfume for selecting Mrs. John Doud, mother-in-law of President Eisenhower as the Mother-in-Law of 1958.

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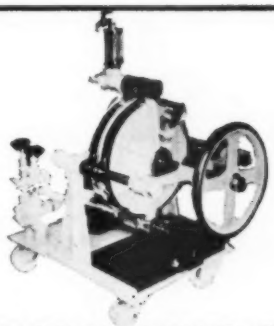

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Frank X. Patrey has been elected president and general manager of Bourjois Inc., New York. He has been in the industry for 15 years and has held key positions with Prince Matchabelli, Inc., the Seaforth Co., and the Sofskin Co.

Frank X. Patrey

Dr. Orlindo Secondini, technical director of Florasynth Laboratories has returned from a three and a half months trip by airplane to Cuba, Dominican Republic, Puerto Rico, the Virgin Islands, Venezuela, Panama, Costa Rica, Nicaraugua, Honduras, El Salvador, Guatamala and Mexico.

Wilbur E. Dewell is now a director and principal consultant for Lanolin Plus, Inc., Chicago, Ill. He was formerly vice president of McKesson & Robbins, Inc.

William P. Schliemann has been appointed assistant sales manager of the Tussy Cosmetics Division of Lehn & Fink Products Corp. Mr. Schliemann went to Tussy from Helene Curtis Industries, Inc., where he was assistant director of Eastern operations. Prior to that he was assistant director of operations and marketing service for Lentheric.

William P. Schliemann

Curt Abel, Novis Co., Flushing, N. Y., is now in Europe consulting with executives of F. Wolff & Son, Karlsruhe.

Charles Bronson is now sales manager of the Industrial Chemical Sales Division of the Lever Bros. Co.

John Thompson has been appointed vice president of Dodge & Olcott of Canada, Ltd.

Lewis F. Bonham is now president of the new Family Products Division of Miles Laboratories, Elkhart, Ind. He resigned as president of Bourjois Inc. to accept the new post. He will continue as a director of Bourjois Inc.

Lewis F. Bonham

Philip Chaleyer, perfume consultant, will leave for Europe on a business and pleasure trip at the end of May. He will visit the Hoffman-La Roche Co. in Basle, Switzerland, with whom he is connected and many of his other business acquaintances in Paris and Grasse.

Allan L. Ritch, formerly with Heine & Co. for many years and later with another leading essential oil company, has joined the organization of Bengue Inc. Union City, N. J.

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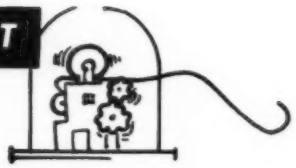

Toiletries Sales Level Off

While toiletry sales set another record high level last year, there has been some tapering off in demands over the past few months. Trade observers fear that unless an early turn is noted in the general economic situation the slump in business will continue to have an adverse influence on sales. While price movements in essential oils and aromatic chemicals were mixed over the past month, citrus oils, particularly those from Florida continued to work higher in price, High and mounting costs mixed with increasing supplies of such basic items as sulfuric acid, toluol, soda ash and glycerin all tend to cloud the immediate price outlook.

PRICE CHANGES

Advances	Current	Previous
Oil orange, Floridian	$1.50	$1.25
Oil celery	15.25	14.50
Oil grapefruit	2.15	2.00
Gum styrax		
Asiatic	2.25	1.75
Honduran	2.00	1.70
Balsam, Peru	1.50	1.25
Oil tangerine	3.25	2.25
Coconut oil, crude, coast	0.14¼	0.13¾
Copra, coast, ton	187.50	181.00
Declines		
Toluene, tanks, gal.	$0.25	$0.29½
Menthol		
Brazilian	5.35	5.60
Japanese	6.90	7.00
Synthetic, laevo	5.85	6.10
Oil cinnamon, leaf	1.45	1.60
Oil ginger	12.75	13.25
Oil tansy	7.10	7.85
Balsam copaiba	0.43	0.50
Tallow, extra	0.07⅞	0.08¼
Grease, white	0.08¾	0.09

(Prices per pound unless otherwise specified)

FLORIDIAN CITRUS OILS RISE—

The upward trend in Floridian orange oil which started back in December was further extended over the past month with prices reaching a new high of $1.50 to $1.70 per pound. Back in November, or before the advance started, the oil had been selling at 50 cents. Tangerine also scored sharp gains. This fruit is more perishable than orange and the series of frosts that hit Florida over the winter months virtually ruined the crop, according to reports. Tangerine oil prices rose from $2.75 to $3.25 to $3.50 per pound.

ALCOHOL SUPPLY INCREASING—

A gradual tapering off in demands and greater availability of the basic material from which synthetic alcohol is made are factors behind a freer supply of alcohol in the market. This is in sharp contrast to conditions existing in the last half of last year when alcohol supplies were light and there had been persistent reports of a possible advance in prices. Current tankcar price of ethyl alcohol is 47 cents a gallon. Some years ago or before alcohol was produced synthetically, alcohol sold as low as 27 cents a gallon.

CITRONELLA DERIVATIVES SOFT—

Some suppliers reduced prices on several chemicals derived from Formosan citronella oil to levels more in line with the general market. The chemicals affected were citronellal, geraniol, and hydroxycitronellal.

BALSAM PERU HIGHER—

Balsam Peru scored a rather sharp advance to the basis of $1.50 to $1.65 per pound. The advance was brought about by the appearance of a greater demand and small stocks. Prices on balsam copaiba turned easier declining from 50 cents per pound to 43 to 45 cents according to quantity.

MENTHOL DECLINING—

Natural menthol from Brazil is declining. Duty paid material dropped from $5.60 to $5.35 to $5.40 per pound. On the basis of reports from the primary center the spot market may possibly go as low as $5 a pound before it develops any degree of stability. The natural product from Japan also lost some ground but the loss in prices only amounted to about 10 cents a pound. Although synthetic laevo material was priced lower at $5.85 to $5.90 a pound it is understood that takings for the account of the tobacco trade have been running into a good volume thus cutting into the available supply.

TONE STEADY IN BOIS DE ROSE—

Prices on Peruvian bois de rose oil are fully 15 cents above the low point of $2.10 per pound reached two months ago. Contrary to earlier expectations, the recovery has failed to be as great as some trade observers had anticipated. Demand for the oil was reported as spotty with individual purchases being limited in volume.

VANILLA BEANS QUIET, FIRM—

While extract manufacturers have been resisting the high prices quoted for vanilla beans in Madagascar and Mexico, inventories are believed to be getting down to a point where replacement purchases may soon be necessary. There remains only approximately 140 tons of unsold beans in Madagascar which will have to meet world requirements for many months to come. New crop Mexican cut beans are currently arriving here and are selling at relatively high prices ranging from $9.25 to $9.75 per pound. New crop whole beans are not expected to arrive here until late this month or early June.

CITRONELLA QUOTA ANNOUNCED—

Although new production of Formosan citronella oil will not get underway until sometime this month, the Formosan Government has fixed the total quantity of oil exports this year at about the same figure as last year or four million pounds. Approximately 55 percent of the total is shipped to the United States for use in the manufacture of synthetic menthol, and in the manufacture of aromatic chemicals which in turn go into soaps and perfume compounds. The oil has been selling at 75 cents to 80 cents per pound or at the lowest level in many months.

STYRAX ADVANCES TO NEW HIGH—

Limited stocks and renewed buying interest forced gum styrax prices to a new high level. Prices for Asiatic styrax rose to $2.25 per pound from $1.75 with the new quotation being largely nominal because of a shortage of spot stocks. New prices for Honduran styrax range from $2 to $2.25 per pound with market conditions suggesting a further upward trend.

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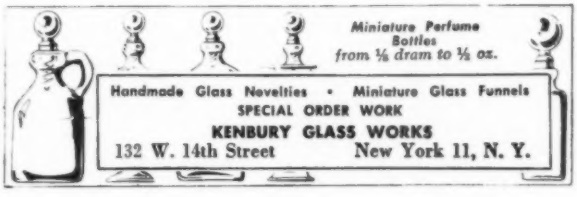
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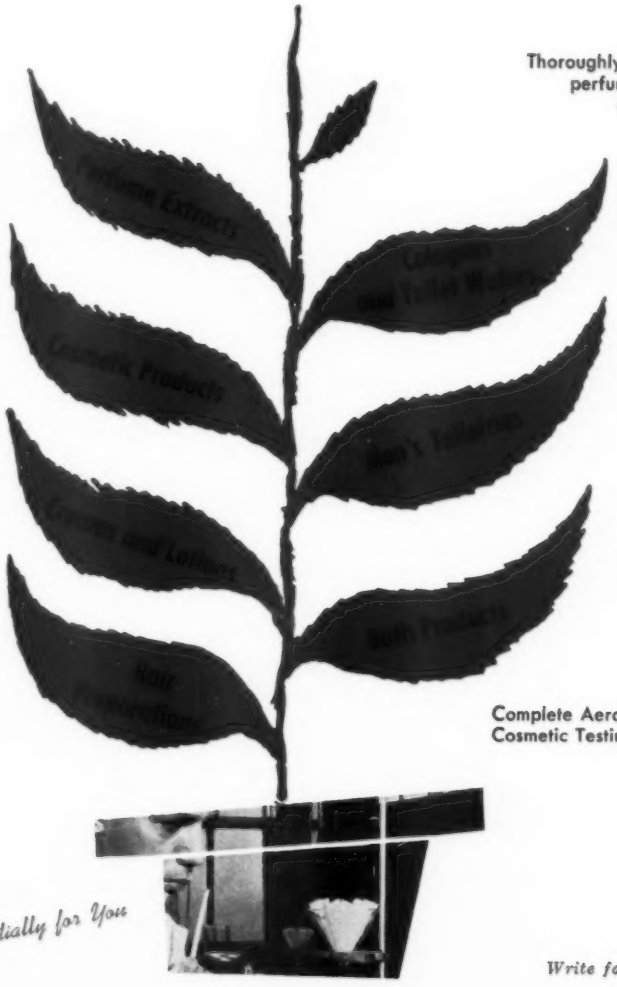

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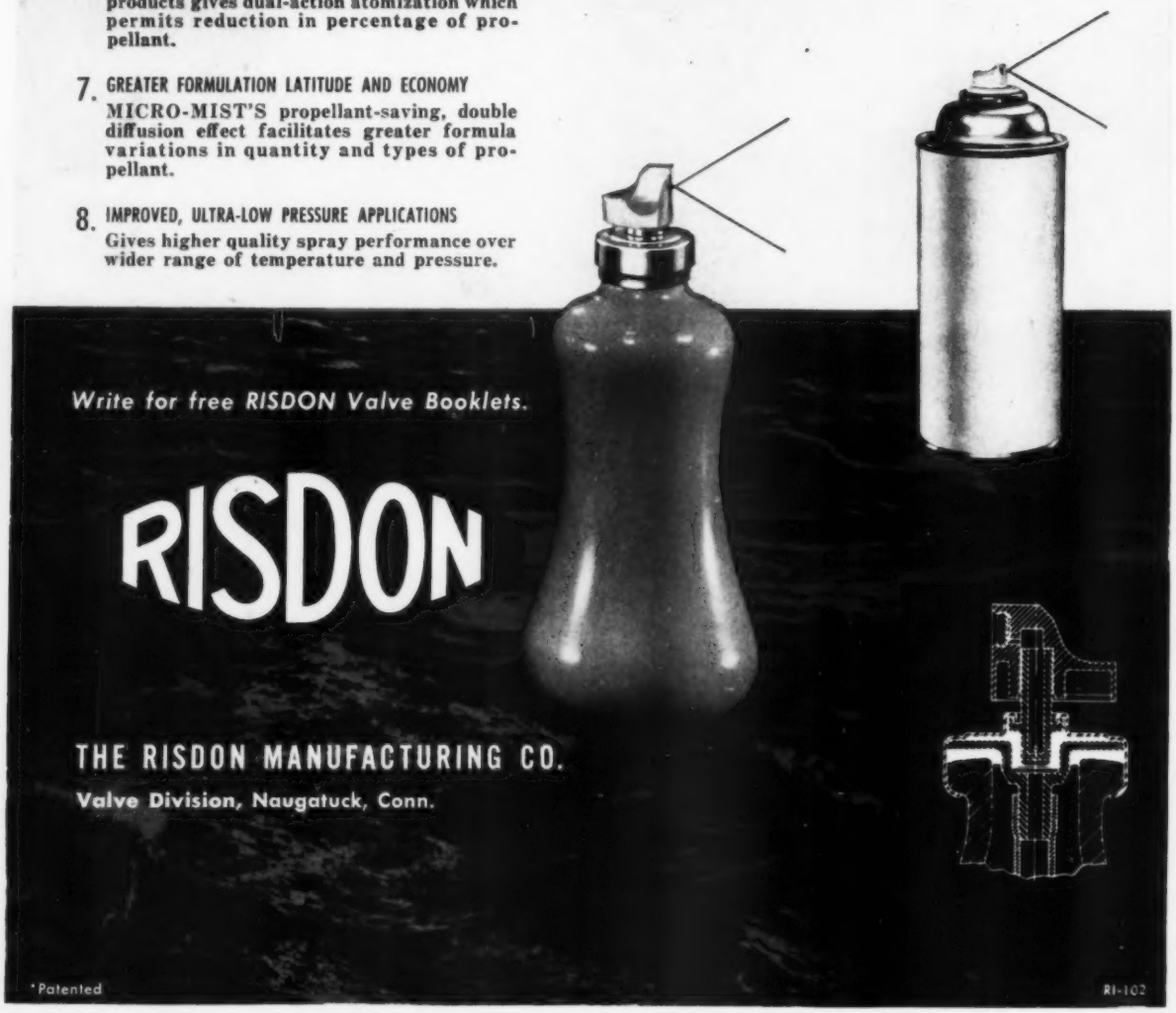

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